EPA Registration # 1706-242

Volume 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

November 16, 2015

Linda J. Fane
Senior Manager
1601 West Diehl Rd.
Naperville, Ill 60563-1198
City/Town, State Zip Code

Subject: Label Amendment – Add 31 optional marketing claims
Product Name: Purate
EPA Registration Number: 1706-242
Application Date: June 15, 2015
Decision Number: 507828

Dear Ms. Fane:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. The next label printing of this product must use this labeling unless subsequent changes have been approved. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E), and 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact David Liem by phone at 703-305-1284, or via email at liem.david@epa.gov.

Sincerely,

Demson Fuller, Product Manager 32
Regulatory Management Branch II
Antimicrobials Division (7510P)
Office of Pesticide Programs

Enclosure

NALCO
PURATE™

A Precursor Chemical Solution for Use Only in the SVP-Pure™ Chlorine Dioxide Generator

This chemical solution is for the use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device that produces CHLORINE DIOXIDE absorbed into water. In addition to this precursor, the SVP-Pure Chlorine Dioxide Generator usually requires a feedstock of 78% sulfuric acid. Please refer to the SVP-Pure Maintenance and Operations Manual to ensure proper activation.

FOR INDUSTIAL USE
KEEP OUT OF REACH OF CHILDREN
DANGER/PELIGRO

"Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)"

ACTIVE INGREDIENT:
Sodium Chlorate ($NaClO_3$) 40.0%
OTHER INGREDIENTS: 60.0%
TOTAL 100.0%

FIRST AID	
IF IN EYES	Hold eye open and flush with a directed stream of water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

In case of exposure emergency, call (800) 424-9300

NALCO COMPANY
1601 W. Diehl Road
Naperville, IL 60563-1198
(630) 305-1000

EPA Reg. No. 1706-242
EPA Est. No. 49620-MS-1

Net Contents _____ Gallons

ACCEPTED
11/16/2015
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 1706-242

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Harmful if absorbed through the skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Wear goggles or face shield. When contact is likely, wear a PVC or rubber rainsuit and wash down rainsuit after each use. Wear protective gloves, plastic or rubber. Wear plastic or rubber safety toed boots. Leather and cloth impregnated with sodium chlorate are highly flammable and easily ignited with minor friction. Remove and wash contaminated clothing before re-use. Do not allow contaminated clothing to dry before washing clothing on-site. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic or ms. Do not discharge effluent containing th duct into lakes, streams, ponds, estuaries, oceans or other waters ...ss in accordance with the requirements of a ...ional Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

CHEMICAL HAZARDS

Purate is a strong oxidizing agent. Do not contaminate with dirt, oils or organic matter of any sort. Contamination may cause violent chemical reactions, fire and explosion. Clean up all chemical spills immediately. Allowing spills to dry or concentrate may cause spontaneous combustion. In case of chemical spills, avoid bodily contact and wear appropriate protective equipment.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Change clothing when contaminated and wash on-site. Do not allow contaminated clothing to dry before washing clothing on-site.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User must wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

User must remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Do not allow contaminated clothing to dry before washing clothing on-site.

User must remove PPE immediately after handing this product. As soon as possible, wash thoroughly and change into clean clothing.

DIRECTIONS FOR USE

General Directions:

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Only for formulation as an antimicrobial for the following uses: Purate is for use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device installed to generate chlorine dioxide for the registered uses listed below. Feed rates for Purate are determined by the operator to achieve the desired production rate for chlorine dioxide. As described below, the appropriate production rate will depend on the severity of contamination, the degree of control desired, the size of the system and residual necessary for effective control. For all uses, the point of feed of chlorine dioxide must be below the water level to prevent volatilization of the chlorine dioxide. Chlorine dioxide must be added to the water stream at a point where adequate mixing and uniform distribution can occur.

Drinking Water Treatment

This product is approved for use in water treatment facilities that produce potable drinking water in compliance with the Safe Drinking Water Act. A typical dosage of chlorine dioxide for water systems is between 0.5 and 5 ppm on a continuous basis. Purate has been approved by the National Sanitation Foundation for use in drinking water systems.

INDUSTRIAL PROCESS WATER USES:

This product is approved for the control of microbial, algal and mollusk populations in industrial process or waste water at the sites listed below. The dosage of chlorine dioxide required is dependent on the specific use; see specific directions below. Purate may be used to treat the following aquatic sites:

Recirculating Cooling Water Towers

To control microbial and algal slime in recirculating cooling water systems, an intermittent or continuous application may be used. If using continuous feed, maintain residual chlorine dioxide concentrations between 0.1 – 1.0 ppm. If using intermittent feed, maintain a residual concentration of 0.1 – 5.0 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Once-Through Cooling Water Towers

To remove adult mollusks in once-through cooling water systems, and intermittent dose of 0.2-25 ppm necessary; the exact dose is dependent on the infestation present. If a continuous dose is preferred, apply chlorine dioxide at rates that maintain 0.25-2 ppm in the cooling water. To prevent settling and attachment of the free swimming larvae or mollusks (velligers), apply a continuous feed to achieve a residual of 0.1-0.5 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Textile processing water and pulp and paper process water

To control microorganisms that form slime in paper process water and that cause blockages of paper mill equipment, and to oxidize slime buildup already present, chlorine dioxide may be applied in an intermittent or continuous dose. Either

method of application must maintain a re concentration of 0.1 – 5.0 ppm of chlorine de in the paper process water. If the system is badly fouled, it must be cleaned prior to treatment with chlorine dioxide. This product can be used as a slimicide for process water used in the manufacture of food-contact paper and paperboard.

Pasteurizer, cannery and retort water systems:
To control odor and reduce bacterial slime in cooling and warming waters such as canning, retort, and pasteurizer process water, chlorine dioxide may be added intermittently to achieve a dose of 0.4 ppm.

Impounded lake, pond and reservoir water, including industrial waste water
To control microorganisms and algae that cause unacceptable odors and slime, these aquatic sites may be treated with chlorine dioxide on an intermittent basis. Sufficient chlorine dioxide must be added to reach a residual concentration of 5 ppm, in order to achieve adequate control of odor and slime caused by algae and microorganisms.

Sewage and wastewater systems
For (disinfection/sanitization) of sewage and wastewater, add chlorine dioxide to achieve a residual of up to 5 ppm. To control odors caused by sulfides associated with sewage and wastewater, a minimum of 5.2 ppm chlorine dioxide must be applied to oxidize 1 ppm sulfide (measured as sulfide ion) if the pH is between 5-9. A minimum of 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol if the pH is less than 8; if the pH is greater than 10, a minimum of 3.5 ppm chlorine dioxide is required.

Gas and oil recovery injection water; fracturing system fluids
(NOT APPROVED FOR USE IN CALIFORNIA)
To control sulfate reducing bacteria that form colloidal sulfur or iron sulfides, and to oxidize sulfides, a continuous or intermittent application of chlorine dioxide may be used. If using a continuous feed of chlorine dioxide, apply it at rates slightly higher than the sulfide oxidative demand, as determined by a sulfide demand study. If using an intermittent feed, apply a shock dose of 200-3000 ppm chlorine dioxide. Please be certain that this product is not discharged into lakes, streams, ponds, oceans or other waters.

Ultrasonic tank water; photo processing wash water; and leather processing solutions
(NOT APPROVED FOR USE IN CALIFORNIA)
To control slime caused by microbial populations in these liquid systems, a residual chlorine dioxide concentration between 0.25 to 5.0 ppm is necessary. Chlorine dioxide may be added intermittently, or on a continuous basis to achieve the desired residual; the concentration maintained is dependent on individual systems.

Agricultural Water Uses (Non-Food Contact)
Purate is approved for use in the control of microbial populations in water for the following agricultural non-food contact uses: Drinking water treatment for animals not meant for human consumption (e.g., show and research animals, animals raised for fur to wool; horses, mules or donkeys). Treatment of drinking water tanks for livestock not meant for human consumption can be achieved by intermittent or continuous application of chloride dioxide. Either method must be monitored, to achieve a residual concentration between 1.0 – 2.0 ppm chlorine dioxide.

This product also may be used to generate chlorine dioxide for non-pesticidal uses such as:

Oxidizing nutrients	Reducing sludge
Eliminating odors	Clarifying/precipitating organic and inorganic particles
Controlling scale & deposits	Reducing TOC (Total Organic Carbon)
Controlling iron & manganese	Reducing color
Controlling corrosion	Destruction of odors caused by phenolic simple cyanides and sulfides by chemical oxidation

Storage and Disposal Statement for non-refillable & refillable containers:

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in the original container. Store at ambient temperatures from 40°F to 100°F. Store separately from sulfuric acid precursor and all other acids. Store in fire-resistant area separate from incompatible materials such as acids, powdered metals, organic chemicals, combustible materials and dirt. Clean up spills immediately.
PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Clean container promptly

after emptying.
Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Alternatively, pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling or reconditioning. If recycling is unavailable, puncture and dispose of container in a sanitary landfill, or by incineration.
CONTAINER HANDLING: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

{Note to reviewer: The following is considered optional marketing language :}

1. Chlorine dioxide is an effective biocide against microbial and algal slime in challenging water conditions in recirculating cooling water towers.
2. Chlorine dioxide is an effective biocide against adult mollusks in challenging water conditions in once-through cooling water towers.
3. Chlorine dioxide is an effective biocide against microorganisms that form slime in challenging water conditions in textile processing water.
4. Chlorine dioxide is an effective biocide against microorganisms that form slime in challenging water conditions in paper process water.
5. Chlorine dioxide is an effective biocide against bacterial slime in challenging water conditions in pasteurizer [, cannery] [and] [, retort water systems].
6. Chlorine dioxide is an effective biocide against microorganisms and algae that cause unacceptable odors and slime in challenging water conditions in [impound lake water] [,] [pond water] [reservoir water] [industrial waste water]
7. Chlorine dioxide is an effective biocide against slime caused by microbial populations in challenging water conditions in [gas and oil recovery injection water] [and] [fracturing system fluids]
8. Chlorine dioxide generated from Purate is effective at pH greater than 7.
9. Chlorine dioxide generated from Purate is effective at pH between 3-10.
10. Chlorine dioxide generated from Purate efficacy is not impacted in the pH range of 3-10.
11. The efficacy of chlorine dioxide generated from Purate is unaffected by ammonia, oil or organic contamination in cooling water or drinking water systems.
12. Because the use of chlorine dioxide generated from Purate allows for lower usage rates to maintain control of the system, it reduces the copper corrosion rates
13. Copper corrosion potential can be reduced by using chlorine dioxide generated from Purate
14. Chlorine dioxide generated from Purate reduces corrosion potentials, helping to expand the life of assets such as condensers and cooling towers.
15. Chlorine dioxide generated from Purate penetrates, removes, controls or prevents microbial slime in recirculating cooling towers, pasteurizer, cannery or retort water, textile or pulp and paper water, impound lakes, ponds or reservoir water including industrial waste water.
16. Chlorine dioxide generated from Purate can help remove, control or prevent microbial slime in recirculating cooling towers, pasteurizer, cannery or retort water, textile or pulp and paper water, impound lakes, ponds or reservoir water including industrial waste water.
17. As a dissolved gas, chlorine dioxide penetrates and removes microbial slime, helping to recover the performance of your heat exchangers (condenser and cooling tower).

18. Replacing Cl2 with chlorine dio generated from Purate can decrease the o-fouling and increase the flow rate through the condenser
19. Replacing Cl2 with chlorine dioxide generated from Purate can decrease the micro-fouling and improve the pressure drop in the condenser
20. Chlorine dioxide generated from Purate helps clean and loosen slime debris from recirculating cooling tower surfaces, pasteurizer, cannery or retort water surfaces, textile or pulp and paper water surfaces, impound lakes, ponds or reservoir water including industrial waste water.
21. Chlorine dioxide generated from Purate reduces the need for corrosion inhibiting chemicals in cooling water applications
22. Chlorine dioxide generated from Purate improves filter operation.
23. Chlorine dioxide generated from Purate is effective against adult and veliger forms of mussels including zebra mussels.
24. Addition of chlorine dioxide generated from Purate to the cooling water does not form corrosive by-products. Corrosion of copper metal surfaces is not accelerated by biocide treatment.
25. When used as directed, chlorine dioxide generated from Purate is available for microbiological control in cooling water rather than being consumed by inorganic-reducing substances in the cooling water.
26. When used as directed, chlorine dioxide generated from Purate is available for microbiological control in drinking water rather than being consumed by inorganic-reducing substances in the drinking water.
27. Surface-active properties of Chlorine dioxide generated from Purate provide a cleansing action that minimizes under-deposit corrosion. This means improved heat transfer and lower operating costs.
28. Effective for use in hard waters at low use concentrations, which means that chlorine dioxide generated from Purate is a cost-effective microbiological treatment in cooling water to complement water and cost savings associated with operating at high cycles of concentration.

Liem, David

From: Fane, Linda <lfane@nalco.com>
Sent: Monday, November 16, 2015 9:46 PM
To: Liem, David
Cc: Fane, Linda
Subject: FW: Label Amendment= Purate (#1706-242)=FANE
Attachments: Purate=1706-242-20151116.pdf

Importance: High

Hi David,

I confirm receipt of the Agency letter.

Thank you for your assistance with this submission.

Linda

Linda J. Fane
Senior Manager
GLOBAL REGULATORY AFFAIRS

NALCO| An Ecolab Company 1601 W DIEHL RD, NAPERVILLE, IL 60563
T 630 305 1455 **F** 630 305 2985 **E** lfane@nalco.com

From: Liem, David [mailto:Liem.David@epa.gov]
Sent: Monday, November 16, 2015 3:15 PM
To: Fane, Linda
Subject: Label Amendment= Purate (#1706-242)=FANE
Importance: High

Linda
Please find attached the Agency letter and stamped label for PURATE (#1706-242) amendment dated June 15, 2015 for your record. Please acknowledge the receipt of these document for the Agency record. Thanks.

David Liem
Antimicrobial Division
Office of Pesticide Programs
Environmental Protection Agency
703-305-1284
Liem.david@epa.gov

NALCO
PURATE™

A Precursor Chemical Solution for Use Only in the SVP-Pure™ Chlorine Dioxide Generator

This chemical solution is for the use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device that produces CHLORINE DIOXIDE absorbed into water. In addition to this precursor, the SVP-Pure Chlorine Dioxide Generator usually requires a feedstock of 78% sulfuric acid. Please refer to the SVP-Pure Maintenance and Operations Manual to ensure proper activation.

FOR INDUSTIAL USE
KEEP OUT OF REACH OF CHILDREN
DANGER/PELIGRO

"Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)"

ACTIVE INGREDIENT:
Sodium Chlorate ($NaClO_3$) 40.0%
OTHER INGREDIENTS: 60.0%
TOTAL 100.0%

duplicate of 11/16/2015
Submitted 10/13/15
as stamped

FIRST AID	
IF IN EYES	Hold eye open and flush with a directed stream of water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

In case of exposure emergency, call (800) 424-9300

NALCO COMPANY
1601 W. Diehl Road
Naperville, IL 60563-1198
(630) 305-1000

:EPA Reg. No. 1706-242
:EPA Est. No. 49620-MS-1

Net Contents _____ Gallons

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Harmful if absorbed through the skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Wear goggles or face shield. When contact is likely, wear a PVC or rubber rainsuit and wash down rainsuit after each use. Wear protective gloves, plastic or rubber. Wear plastic or rubber safety toed boots. Leather and cloth impregnated with sodium chlorate are highly flammable and easily ignited with minor friction. Remove and wash contaminated clothing before re-use. Do not allow contaminated clothing to dry before washing clothing on-site. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

ENVIRONMENTAL HAZARDS

Revision 10/13/2015

2 original
Exhibit labels 10/13/15

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

CHEMICAL HAZARDS

Purate is a strong oxidizing agent. Do not contaminate with dirt, oils or organic matter of any sort. Contamination may cause violent chemical reactions, fire and explosion. Clean up all chemical spills immediately. Allowing spills to dry or concentrate may cause spontaneous combustion. In case of chemical spills, avoid bodily contact and wear appropriate protective equipment.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Change clothing when contaminated and wash on-site. Do not allow contaminated clothing to dry before washing clothing on-site.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User must wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

User must remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Do not allow contaminated clothing to dry before washing clothing on-site.

User must remove PPE immediately after handing this product. As soon as possible, wash thoroughly and change into clean clothing.

DIRECTIONS FOR USE

General Directions:

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Only for formulation as an antimicrobial for the following uses: Purate is for use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device installed to generate chlorine dioxide for the registered uses listed below. Feed rates for Purate are determined by the operator to achieve the desired production rate for chlorine dioxide. As described below, the appropriate production rate will depend on the severity of contamination, the degree of control desired, the size of the system and residual necessary for effective control. For all uses, the point of feed of chlorine dioxide must be below the water level to prevent volatilization of the chlorine dioxide. Chlorine dioxide must be added to the water stream at a point where adequate mixing and uniform distribution can occur.

Drinking Water Treatment

This product is approved for use in water treatment facilities that produce potable drinking water in compliance with the Safe Drinking Water Act. A typical dosage of chlorine dioxide for water systems is between 0.5 and 5 ppm on a continuous basis. Purate has been approved by the National Sanitation Foundation for use in drinking water systems.

INDUSTRIAL PROCESS WATER USES:

This product is approved for the control of microbial, algal and mollusk populations in industrial process or waste water at the sites listed below. The dosage of chlorine dioxide required is dependent on the specific use; see specific directions below. Purate may be used to treat the following aquatic sites:

Recirculating Cooling Water Towers

To control microbial and algal slime in recirculating cooling water systems, an intermittent or continuous application may be used. If using continuous feed, maintain residual chlorine dioxide concentrations between 0.1 – 1.0 ppm. If using intermittent feed, maintain a residual concentration of 0.1 – 5.0 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Once-Through Cooling Water Towers

To remove adult mollusks in once-through cooling water systems, and intermittent dose of 0.2-25 ppm necessary; the exact dose is dependent on the infestation present. If a continuous dose is preferred, apply chlorine dioxide at rates that maintain 0.25-2 ppm in the cooling water. To prevent settling and attachment of the free swimming larvae or mollusks (velligers), apply a continuous feed to achieve a residual of 0.1-0.5 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Textile processing water and pulp and paper process water

To control microorganisms that form slime in paper process water and that cause blockages of paper mill equipment, and to oxidize slime buildup already present, chlorine dioxide may be applied in an intermittent or continuous dose. Either

method of application must maintain a residual concentration of 0.1 – 5.0 ppm of chlorine dioxide in the paper process water. If the system is badly fouled, it must be cleaned prior to treatment with chlorine dioxide. This product can be used as a slimicide for process water used in the manufacture of food-contact paper and paperboard.

Pasteurizer, cannery and retort water systems:
To control odor and reduce bacterial slime in cooling and warming waters such as canning, retort, and pasteurizer process water, chlorine dioxide may be added intermittently to achieve a dose of 0.4 ppm.

Impounded lake, pond and reservoir water, including industrial waste water
To control microorganisms and algae that cause unacceptable odors and slime, these aquatic sites may be treated with chlorine dioxide on an intermittent basis. Sufficient chlorine dioxide must be added to reach a residual concentration of 5 ppm, in order to achieve adequate control of odor and slime caused by algae and microorganisms.

Sewage and wastewater systems
For (disinfection/sanitization) of sewage and wastewater, add chlorine dioxide to achieve a residual of up to 5 ppm. To control odors caused by sulfides associated with sewage and wastewater, a minimum of 5.2 ppm chlorine dioxide must be applied to oxidize 1 ppm sulfide (measured as sulfide ion) if the pH is between 5-9. A minimum of 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol if the pH is less than 8; if the pH is greater than 10, a minimum of 3.5 ppm chlorine dioxide is required.

Gas and oil recovery injection water; fracturing system fluids
(NOT APPROVED FOR USE IN CALIFORNIA)
To control sulfate reducing bacteria that form colloidal sulfur or iron sulfides, and to oxidize sulfides, a continuous or intermittent application of chlorine dioxide may be used. If using a continuous feed of chlorine dioxide, apply it at rates slightly higher than the sulfide oxidative demand, as determined by a sulfide demand study. If using an intermittent feed, apply a shock dose of 200-3000 ppm chlorine dioxide. Please be certain that this product is not discharged into lakes, streams, ponds, oceans or other waters.

Ultrasonic tank water; photo processing wash water; and leather processing solutions
(NOT APPROVED FOR USE IN CALIFORNIA)
To control slime caused by microbial populations in these liquid systems, a residual chlorine dioxide concentration between 0.25 to 5.0 ppm is necessary. Chlorine dioxide may be added intermittently, or on a continuous basis to achieve the desired residual; the concentration maintained is dependent on individual systems.

Agricultural Water Uses (Non-Food Contact)
Purate is approved for use in the control of microbial populations in water for the following agricultural non-food contact uses: Drinking water treatment for animals not meant for human consumption (e.g., show and research animals, animals raised for fur to wool; horses, mules or donkeys). Treatment of drinking water tanks for livestock not meant for human consumption can be achieved by intermittent or continuous application of chloride dioxide. Either method must be monitored, to achieve a residual concentration between 1.0 – 2.0 ppm chlorine dioxide.

This product also may be used to generate chlorine dioxide for non-pesticidal uses such as:

Oxidizing nutrients	Reducing sludge
Eliminating odors	Clarifying/precipitating organic and inorganic particles
Controlling scale & deposits	Reducing TOC (Total Organic Carbon)
Controlling iron & manganese	Reducing color
Controlling corrosion	Destruction of odors caused by phenolic simple cyanides and sulfides by chemical oxidation

Storage and Disposal Statement for non-refillable & refillable containers:

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in the original container. Store at ambient temperatures from 40°F to 100°F. Store separately from sulfuric acid precursor and all other acids. Store in fire-resistant area separate from incompatible materials such as acids, powdered metals, organic chemicals, combustible materials and dirt. Clean up spills immediately.
PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Clean container promptly

after emptying.
Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Alternatively, pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling or reconditioning. If recycling is unavailable, puncture and dispose of container in a sanitary landfill, or by incineration.
CONTAINER HANDLING: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

{Note to reviewer: The following is considered optional marketing language :}

1. Chlorine dioxide is an effective biocide against microbial and algal slime in challenging water conditions in recirculating cooling water towers.
2. Chlorine dioxide is an effective biocide against adult mollusks in challenging water conditions in once-through cooling water towers.
3. Chlorine dioxide is an effective biocide against microorganisms that form slime in challenging water conditions in textile processing water.
4. Chlorine dioxide is an effective biocide against microorganisms that form slime in challenging water conditions in paper process water.
5. Chlorine dioxide is an effective biocide against bacterial slime in challenging water conditions in pasteurizer [, cannery] [and] [, retort water systems].
6. Chlorine dioxide is an effective biocide against microorganisms and algae that cause unacceptable odors and slime in challenging water conditions in [impound lake water] [,] [pond water] [reservoir water] [industrial waste water]
7. Chlorine dioxide is an effective biocide against slime caused by microbial populations in challenging water conditions in [gas and oil recovery injection water] [and] [fracturing system fluids]
8. Chlorine dioxide generated from Purate is effective at pH greater than 7.
9. Chlorine dioxide generated from Purate is effective at pH between 3-10.
10. Chlorine dioxide generated from Purate efficacy is not impacted in the pH range of 3-10.
11. The efficacy of chlorine dioxide generated from Purate is unaffected by ammonia, oil or organic contamination in cooling water or drinking water systems.
12. Because the use of chlorine dioxide generated from Purate allows for lower usage rates to maintain control of the system, it reduces the copper corrosion rates
13. Copper corrosion potential can be reduced by using chlorine dioxide generated from Purate
14. Chlorine dioxide generated from Purate reduces corrosion potentials, helping to expand the life of assets such as condensers and cooling towers.
15. Chlorine dioxide generated from Purate penetrates, removes, controls or prevents microbial slime in *recirculating cooling towers, pasteurizer, cannery or retort water, textile or pulp and paper water,* impound lakes, ponds or reservoir water including industrial waste water.
16. Chlorine dioxide generated from Purate can help remove, control or prevent microbial slime in recirculating cooling towers, pasteurizer, cannery or retort water, textile or pulp and paper water, impound lakes, ponds or reservoir water including industrial waste water.
17. As a dissolved gas, chlorine dioxide penetrates and removes microbial slime, helping to recover the performance of your heat exchangers (condenser and cooling tower).

18. Replacing Cl2 with chlorine dioxide generated from Purate can decrease the micro-fouling and increase the flow rate through the condenser
19. Replacing Cl2 with chlorine dioxide generated from Purate can decrease the micro-fouling and improve the pressure drop in the condenser
20. Chlorine dioxide generated from Purate helps clean and loosen slime debris from recirculating cooling tower surfaces, pasteurizer, cannery or retort water surfaces, textile or pulp and paper water surfaces, impound lakes, ponds or reservoir water including industrial waste water.
21. Chlorine dioxide generated from Purate reduces the need for corrosion inhibiting chemicals in cooling water applications
22. Chlorine dioxide generated from Purate improves filter operation.
23. Chlorine dioxide generated from Purate is effective against adult and veliger forms of mussels including zebra mussels.
24. Addition of chlorine dioxide generated from Purate to the cooling water does not form corrosive by-products. Corrosion of copper metal surfaces is not accelerated by biocide treatment.
25. When used as directed, chlorine dioxide generated from Purate is available for microbiological control in cooling water rather than being consumed by inorganic-reducing substances in the cooling water.
26. When used as directed, chlorine dioxide generated from Purate is available for microbiological control in drinking water rather than being consumed by inorganic-reducing substances in the drinking water.
27. Surface-active properties of Chlorine dioxide generated from Purate provide a cleansing action that minimizes under-deposit corrosion. This means improved heat transfer and lower operating costs.
28. Effective for use in hard waters at low use concentrations, which means that chlorine dioxide generated from Purate is a cost-effective microbiological treatment in cooling water to complement water and cost savings associated with operating at high cycles of concentration.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

July 27, 2015

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

MS. TAMERA MCKEEHAN
ECOLAB, INC.
NALCO COMPANY
A SUBSIDIARY OF ECOLAB, INC.
370 WABASHA STREET NORTH
ST. PAUL, MN 55102-1390

PRODUCT NAME: PURATE
COMPANY NAME: NALCO COMPANY
OPP IDENTIFICATION NUMBER:
EPA FILE SYMBOL: 1706-242
EPA RECEIPT DATE: 07/16/15

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Antimicrobials Division, Risk Management Team 32, at (703) 308-8062.

Sincerely,

Front End Processing Staff
Information Services Branch
Information Technology & Resources Management Division

NALCO
An Ecolab Company

Linda Fane
Senior Manager
1601 W. DIEHL ROAD
NAPERVILLE, IL 60563-1198
lfane@nalco.com

630 305 1455
630 305 2945

June 15, 2015

Document Processing Desk (NOTIFY)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501

Attention: Mr. Demson Fuller PM-32

Subject: **Label Amendment**

Product: Purate (EPA Reg. No. 1706-242)

Dear Mr. Fuller:

Nalco Company is submitting an amendment to add optional marketing text to our label for Purate (EPA Registration Number 1706-242).

In support of this amendment I have included:
1. The EPA Application Form (EPA Form 8570-1)
2. Amended label with the optional marketing text highlighted in yellow

If you have any questions, please contact me at 630-305-1455.

Regards,

Linda J. Fane
Senior Manager/Regulatory Affairs

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 2-28-95

EPA	United States Environmental Protection Agency Washington, DC 20460	☐ Registration ☒ Amendment ☐ Other	OPP Identifier Number

Application for Pesticide – Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
1706-242	**Demson Fuller**	☒ None ☐ Restricted
4. Company/Product (Name)	PM#	
Purate ™	**32**	

5. Name and Address of Applicant *(Include ZIP Code)*	6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:
Nalco, an Ecolab Company 1601 West Diehl Road Naperville, IL 60563 ☐ *Check if this is a new address*	EPA Reg. Nos. Product Names

Section - II

☒ Amendment – Explain below.
☐ Resubmission in response to Agency letter dated _____
☐ Notification – Explain Below.
☐ Final printed labels in response to Agency letter dated _____
☐ "Me Too" Application
☐ Other – Explain Below.

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

Label amendment to add optional marketing text.

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging		Water Soluble Packaging		2. Type of Container
☐ Yes ☒ No **** Certification must be submitted***	☐ Yes ☒ No If "Yes" Unit Packaging wgt.	No. per Container	☐ Yes ☒ No If "Yes" Packaging wgt.	No. per Container	☐ Metal ☒ Plastic ☐ Glass ☐ Paper ☒ Other (Specify) Bulk

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
☐ Label ☒ Container	311 gal. plastic tote, bulk	☒ On Label ☐ On Labeling accompanying product

6. Manner in Which Label is Affixed to Product ☐ Lithograph ☒ Paper Glued ☐ Stenciled ☐ Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Linda J. Fane	Senior Manager, Regulatory Affairs	630-305-1455

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law

2. Signature	3. Title	6. Date Application Received (Stamped)
Linda J. Fane	Senior Manager, Regulatory Affairs	
4. Typed Name	5. Date	
Linda J. Fane	June 15, 2015	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

July 27, 2015

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

MS. TAMERA MCKEEHAN
ECOLAB, INC.
NALCO COMPANY
A SUBSIDIARY OF ECOLAB, INC.
370 WABASHA STREET NORTH
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Front End Processing Staff
Information Services Branch
Information Technology & Resources Management Division

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Arlington, VA 22202-4501

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Regards,

Linda J. Fane
Senior Manager/Regulatory Affairs

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EPA	United States **Environmental Protection Agency** Washington, DC 20460	☐ Registration ☒ Amendment ☐ Other	OPP Identifier Number

Application for Pesticide – Section I

1. Company/Product Number **1706-242**	2. EPA Product Manager **Demson Fuller**	3. Proposed Classification ☒ None ☐ Restricted
4. Company/Product (Name) **Purate ™**	PM# **32**	
5. Name and Address of Applicant *(Include ZIP Code)* Nalco, an Ecolab Company 1601 West Diehl Road Naperville, IL 60563 ☐ *Check if this is a new address*	6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. Nos. Product Names	

Section - II

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☐ Yes ☒ No	☐ Yes ☒ No		☐ Yes ☒ No		☐ Metal ☒ Plastic ☐ Glass ☐ Paper ☒ Other (Specify) Bulk
** *Certification must be submitted*	If "Yes" Unit Packaging wgt.	No. per Container	If "Yes" Packaging wgt.	No. per Container	

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Section - IV

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Name	Title	Telephone No. (Include Area Code)
Linda J. Fane	Senior Manager, Regulatory Affairs	630-305-1455

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law

2. Signature	3. Title	6. Date Application Received (Stamped)
Linda J. Fane	Senior Manager, Regulatory Affairs	
4. Typed Name: Linda J. Fane	5. Date: June 15, 2015	

Fuller, Demson

Subject: Purate: 1706-242 Optional Marketing Claims
Location: Teleconference

Start: Thu 10/8/2015 11:30 AM
End: Thu 10/8/2015 12:00 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Fane, Linda

Hi Demson, Just wanted to get this meeting on your calendar.

-- Do not delete or change any of the following text. --

Join WebEx meeting
Meeting number: [redacted]

If you are the host, you can use the meeting host key to pass the host privilege to another participant or to start the meeting from a video conferencing system or application. To find the host key for this meeting, go here.

Join by phone
[redacted]US Toll Free
[redacted]US Toll
Access code: [redacted]
Global call-in numbers | Toll-free calling restrictions

Personal privacy information

Can't join the meeting? Contact support.

IMPORTANT NOTICE: Please note that this WebEx service allows audio and other information sent during the session to be recorded, which may be discoverable in a legal matter. By joining this session, you automatically consent to such recordings. If you do not consent to being recorded, discuss your concerns with the host or do not join the session..

RE: Comments on submitted amen...

We may have questions or need clarification. I will call you to discuss these over the phone.

Thanks again and have a great day!

Linda J. Fane
Senior Manager
GLOBAL REGULATORY AFFAIRS

NALCO| An Ecolab Company 1601 W DIEHL RD, NAPERVILLE, IL 60563
T 630 305 1455 **F** 630 305 2985 **E** lfane@nalco.com

Less Col(2) ≡

From: Liem, David [mailto:Liem.David@epa.gov]
Sent: Friday, September 25, 2015 1:55 PM
To: Fane, Linda
Subject: Comments on submitted amendment on Purate (EPA Reg#1706-242)=FANE
Importance: High

Dear Ms Fane

After reviewing your submitted amendment for Purate (EPA Reg#1706-242) to add optional marketing text, the following marketing claims were not acceptable and must be removed because they are false and misleading, per 40CFR156(10)(5). (Also refer to PR Notice 93-6 –False and misleading statement and the OPP Label Review Manual (Chapter's 4 and 12), and DIS/TSS#1 and Efficacy#810:

- Claim No. 1: The "broad spectrum biocide" claim must be removed. The claim is comprehensive and can be construed as effective against public health organisms. No efficacy data were submitted to support these claims

- Claim Nos. 2 – 5: - Based on your posted website, the pH claims correlate with public health claims (http://www.ecolab.com/~/media/Ecolab/Ecolab%20Home/Documents/DocumentLibrary/Brochures/Nalco%20WPS/B1423PurateOnSiteChlorideDioxideGeneration.ashx). This may imply that the product has a unique characteristic because of its composition

- Claim No. 6: The claim is comprehensive and can be construed as effective against public health organisms. Alternatively, you can qualify "ammonia or oil organic contamination" with non-public health claims (e.g., oil organic contamination found in gas and oil recovery injection water)

- Claim Nos. 7- 10: The claims are comparative. In addition, for Claim # 7, the claim is comprehensive (see comment #6)

- Claim Nos. 13-15: No efficacy data were submitted to support "biofilm" claims. The claims must be removed or, alternatively, "biofilm" must be qualified to "slime-forming bacteria"

- Claim Nos. 18-21& 23: The claims you are proposing to minimize or reduce (i.e., by-products, THM, HAA, AOX) may need to be further substantiated with data and reviewed by our science branches.

- Claim No. 22: Th .im is comprehensive and can be cons d as effective against public health organisms. No efficacy data were submitted to support the claims. In addition, the claim is comparative

- Claim No. 25: The claim is comparative

- Claim Nos. 29 & 31 - The claims are comprehensive and can be construed as effective against public health organisms.
  No efficacy data were submitted to support these claims

Please resubmit you updated amendment, and if you have further questions please don't hesitate to contact me.

David Liem
Antimicrobial Division
Office of Pesticide Programs
Environmental Protection Agency
703-305-1284
Liem.david@epa.gov

Fuller, Demson

From: Hsieh, Diana
Sent: Wednesday, October 07, 2015 8:41 AM
To: Fuller, Demson
Cc: Breithaupt, James
Subject: RE: Draft Language/By-Products Claim

Hi Demson!

I asked Jim's advice and we edited your response slightly,

"I followed up with our risk assessment team regarding this question. You will need to provide information to support the claim that chlorine dioxide is producing the by-products in negligible amounts. You may provide public literature that supports this claim or conduct a study on your own. This information is non-guideline and is not normally required to support a pesticide product application but is necessary to support the above claim."

I hope this will answer their question.

Thanks,
Diana

From: Fuller, Demson
Sent: Monday, October 05, 2015 4:06 PM
To: Hsieh, Diana
Cc: Henson, Wanda
Subject: Draft Language/By-Products Claim

Hey Diana,

I appreciate the follow up you provided me last week about the Nalco/Ecolab claim below. Per our conversation, I drafted a response I was going to provide to the company (see in blue). Just to make sure, the by-products are not any degradates that we would need to do any further review...right? If so, and if Nalco may push back and argue that these claims are non-pesticidal and have no risk significance in making a determination with this product application.

"I followed up with our risk assessment team regarding this question. You will need to provide information to show what level of chlorine dioxide is producing the by-product in negligible amounts. This information is non-guideline and is not required to support a pesticide product application. However, if your company can provide public literature that supports your claim, we will do a quick informal review of it to determine if it is adequate."

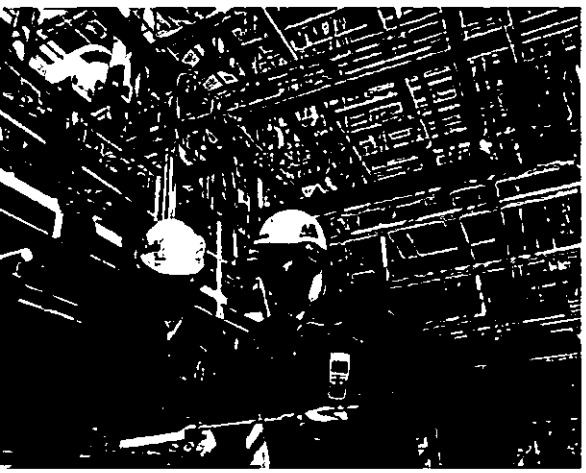
Byproduct claims:

1. We'd like to understand what specifically would need to be provided by EPA to allow the 18-21 & 23 claims. Mr. Liem said that data "may" need to be provided (see Mr. Liem's comments in red below). Can you provide additional information on what data is needed and if we are required to submit it for review?
2. Claim Nos. 18-21& 23: The claims you are proposing to minimize or reduce (i.e., by-products, THM, HAA, AOX) may need to be further substantiated with data and reviewed by our science branches.

Demson Fuller
Product Manager, Team 32
US Environmental Protection Agency
Office of Pesticide Programs
Antimicrobials Division
Regulatory Management Branch II
(703)-308-8062

CHLORINE DIOXIDE

A world-class biocide for challenging water conditions



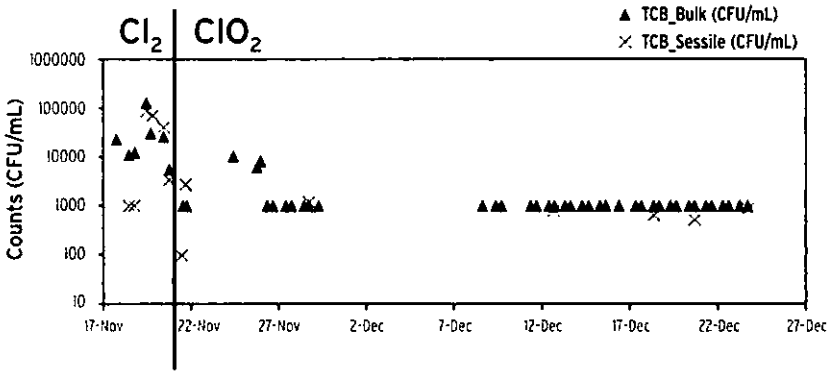
Chlorine Dioxide Advantages

Chlorine dioxide (ClO_2) is a world-class water antimicrobial that can be applied in treatment of recirculating cooling towers with the following advantages:

Effectively reduces bacteria counts including oil contamination compared to chlorine-based biocide programs. Less ClO_2 is required to achieve similar performance.

RESULTS IN A REFINERY

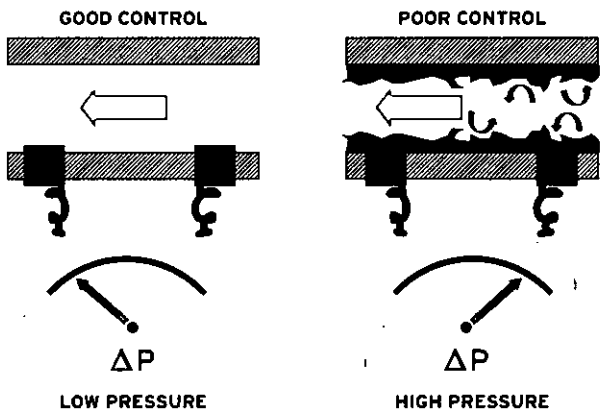
> 90% Total Count Bacteria reduction in bulk and sessile samples



As a dissolved gas, it penetrates and removes biofilm, helping to recover the performance of your heat exchangers (condenser and cooling tower).

RESULTS IN A POWER PLANT

Replacing Cl_2 with ClO_2 decreased the micro-fouling and increased the flow rate through the condenser



MICROBIAL FOULING CAN REDUCE FLOW AND INCREASE DELTA PRESSURE

DECREASE OF PRODUCTION OUTPUT

Biofilm build-up can decrease heat transfer capabilities and negatively impact production

ASSET PROTECTION

Inadequate microbial control can result in microbiologically influenced corrosion in cooling water systems

MANPOWER LIMITATIONS

Waste of labor resources due to a high number of biocide deliveries, maintenance and feed pump failures

• RELIABLE

Nalco is your partner in water treatment.

Our dedicated water treatment experts can help you with a strategy to manage safety concerns, complex regulatory compliances and operational challenges caused by demanding water conditions. We understand the significance and financial impact of those factors on your operation. By partnering with the leading water expert, you will have access to technologies and services that will improve your operational efficiencies and help to make your operation safer and more reliable.

DELIVERY

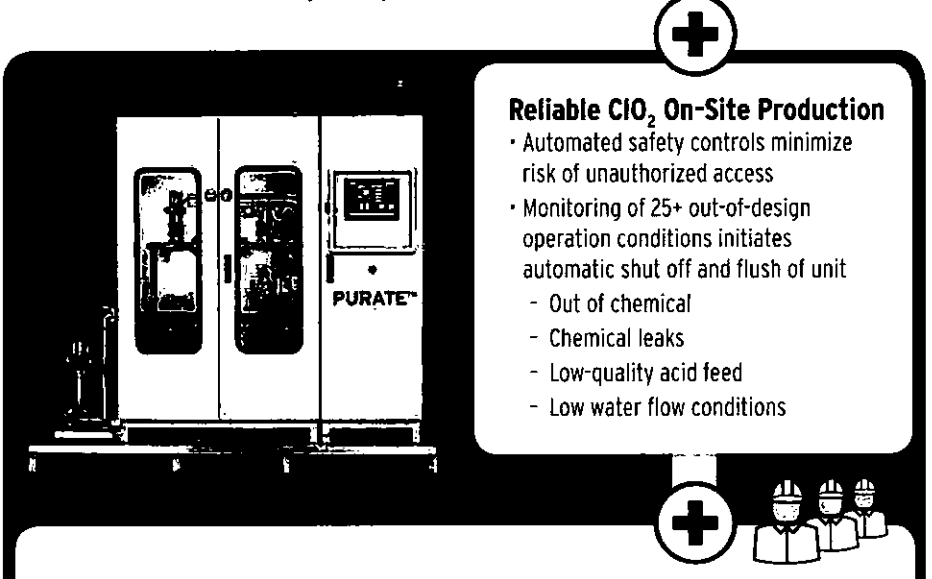
Reduced Security Check-In Procedures

Up to 80% less deliveries are needed compared to bleach

Safer Delivery

Lock & Key PURATE connector minimizes the risk of filling the wrong holding tank

STORAGE



Reliable ClO_2 On-Site Production

- Automated safety controls minimize risk of unauthorized access
- Monitoring of 25+ out-of-design operation conditions initiates automatic shut off and flush of unit
  - Out of chemical
  - Chemical leaks
  - Low-quality acid feed
  - Low water flow conditions

TREATMENT

Reliable Performance You Need

- Effective at pHs up to 10.0
- Unaffected by NH_3 or oil contamination
- Reduces copper corrosion potential
- Penetrates and removes biofilm

System Monitoring

Real-time monitoring of corrosion rates and ClO_2 residuals

Chemical Inventory Management

Real-time information on precursor inventory

Generator KPI On-Line Tracking

Reduced system down time and response time

Your Operations Face Unique Challenges...

Security concerns, regulatory discharge limits, contaminated and changing water conditions in combination with the use of an ineffective biocide program and poor monitoring can negatively impact the bottom line of your industrial operation.

SAFETY
Increasing concern for safer on-site delivery and operations

DISCHARGE REGULATORY FINES
Violation of NPDES Permit due to discharging higher amounts of AOX, THM and HAA

INCREASE THE TOTAL COST OF OPERATIONS

PURATE

SIMPLE • COST EFFECTIVE

Nalco's PURATE program is a best-in-class biocide program for challenging water conditions, designed to improve efficiencies and reduce costs.

PURATE brings together turnkey technologies and services to maximize results.

Nalco combines integrated, innovative technologies and broad application and engineering expertise to meet your individual performance goals and to maximize results.

From chemistry production to on-site application – the PURATE program delivers the performance you need.

While chlorine dioxide is considered an effective biocide in high-demand cooling water applications, it has to be delivered in a safe, reliable and cost-effective manner. Designing the PURATE biocide program step by step from chemistry production to meeting discharge limits, we have your security, regulatory compliance and operational efficiency needs in mind.

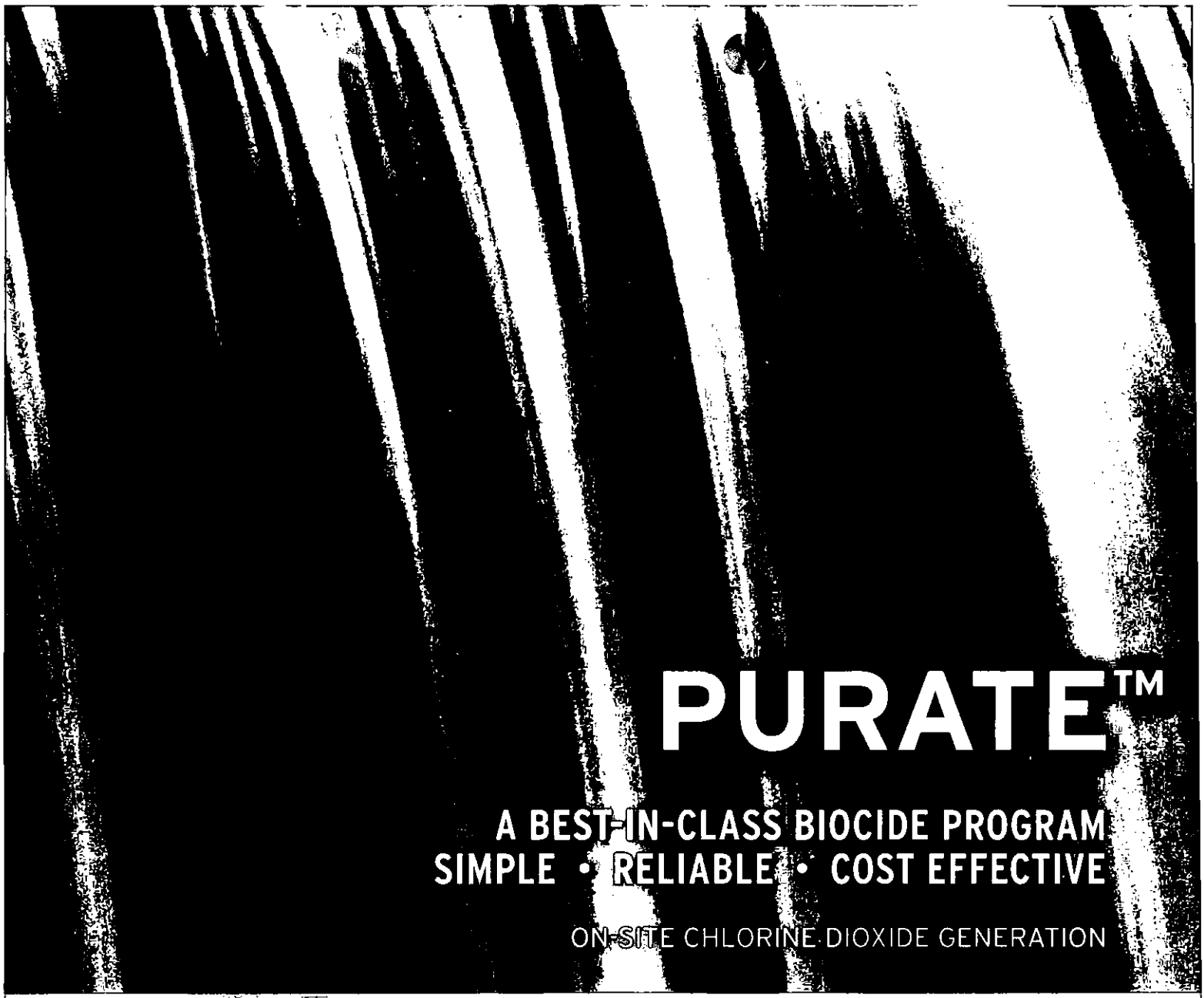
PRODUCTION

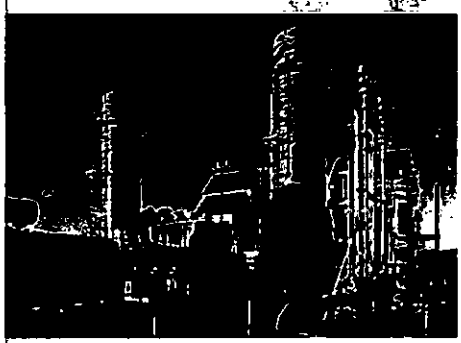
ISO-Certified Production
Best-in-class manufacturing and QA procedures

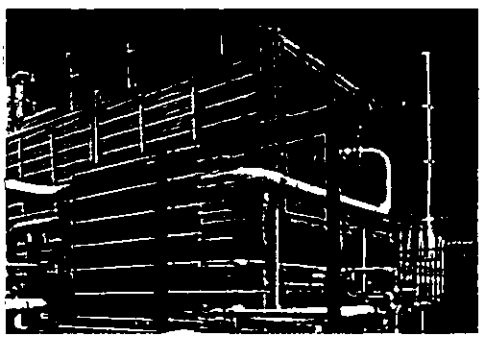
Chemistry Cross-Contamination Elimination
Exclusive use of designated PURATE trailers

DISCHARGE

By-Products
Minimizes the formation of objectionable by-products

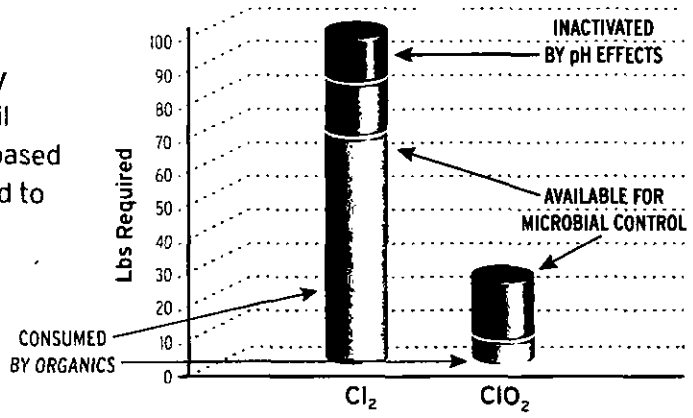






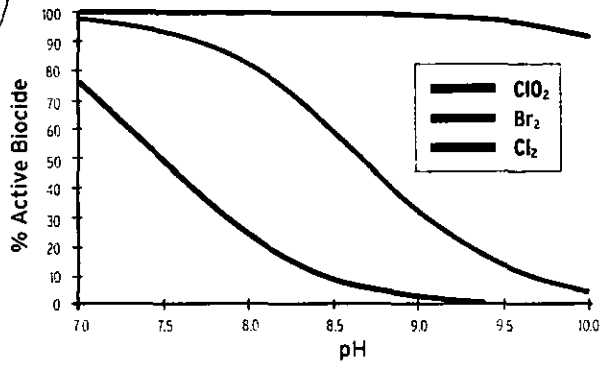
NALCO
An Ecolab Company

Significantly reduces consumption by ammonia or organics loads such as oil contamination compared to chlorine-based biocide programs. Less ClO_2 is required to achieve similar performance.



ClO_2 IS LESS AFFECTED BY pH AND CONTAMINANTS THAT CREATE DEMAND

It is more effective at pHs greater than 7.0 compared to chlorine and bromine gas. Less ClO_2 is required to achieve similar performance.

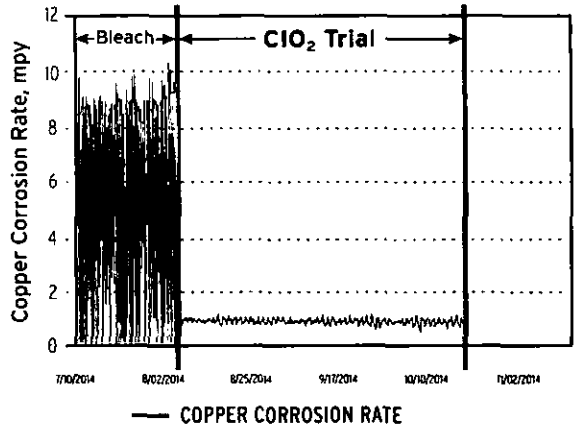


ClO_2 DISINFECTANT IS EFFECTIVE EVEN AT pH >9

Reduces corrosion potentials, helping to extend the life of assets such as condenser tubes and cooling system piping.

RESULTS IN A POWER PLANT

Significant reduction of corrosion rate if ClO_2 was added to the system



Minimizes the formation of objectionable by-products, helping to meet NPDES permit requirements.

RESULTS IN A REFINERY

Significant reduction in objectionable by-products after ClO_2 treatment, despite significant increase in oil and grease contamination

	100A Sump	
	8/11/2014	9/22/2014
	Bleach	ClO_2
Oil and Grease (mg/L)	5	39
Bromodichloromethane (ug/L)	5.6	<.5
Bromoform (ug/L)	<.5	<.5
Chloroform (ug/L)	42.3	<.5
Dibromochloromethane (ug/L)	1.7	<.5
Sample Number	NW137164	NW141291

PURATE

The most efficient and reliable ClO_2 hands-off solution

PURATE Benefits and Superior Economic Advantages

The ideal program for the following cooling water applications:

- Use of lake or river water; seawater; recycled (municipal reclaimed) water as make-up water
- Contamination with ammonia or organics such as oil caused by process leaks
- Challenges to meet NPDES discharge permits
- Systems with copper alloy metallurgies and high corrosion rates
- pH applications up to 10.0
- Production limitations due to poor heat exchanger performance
- Operational interruptions due to biocide feed pump failures and maintenance issues
- Challenges to meet Homeland Security requirements for chlorine gas storage

Cost-effective, patented, two-component formula:

PURATE is a proprietary unique, stabilized solution of sodium chlorate ($NaClO_3$) and hydrogen peroxide (H_2O_2). The PURATE generator uses PURATE and sulfuric acid to safely produce on-site ClO_2. No chlorine gas or hypochlorite are used to generate ClO_2 in this process.

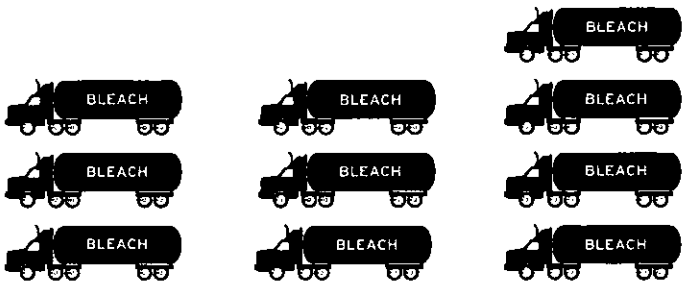
PURATE + ACID = ClO_2

PURATE is activated with sulfuric acid (78-98%)

Capacity: Up to 4,000 lbs/day ClO_2

(REPLACING UP TO 10,000 GALLONS/DAY OF BLEACH)

Benefits include: $ LOW OVERALL COST FOR INDUSTRIAL APPLICATION



The potential impact of bleach deliveries can be significant compared to chlorine-based biocide programs:

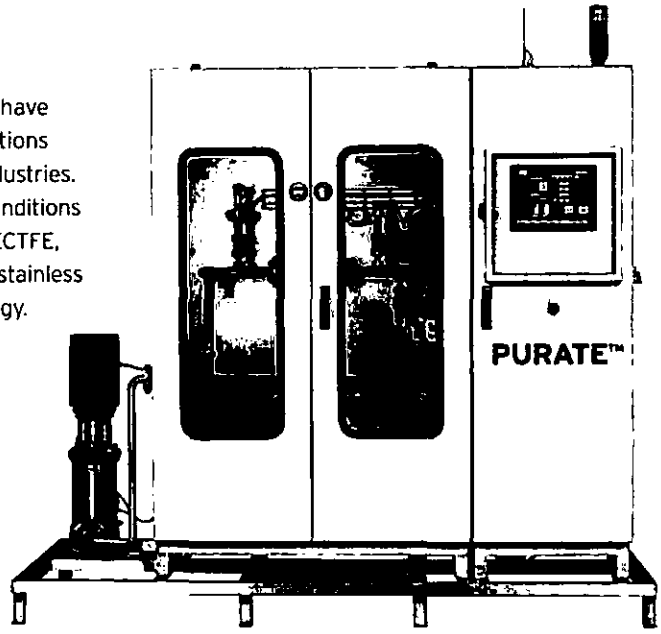
UP TO 80% LESS DELIVERIES

Cl_2 FREE | **95%+ EFFICIENT** | **2 PRE-CURSOR CHEMICAL PROCESS** | **RELIABLE GENERATION ClO_2**

Reliable generator operations

Reliability is a must in Heavy Industry. These systems have been proven in the field for over 15 years with installations now including the Power, Chemical, Steel and Paper industries. They are designed to perform under the harshest of conditions with best-in-class materials of construction, including ECTFE, Tantalum and PVDF. Generators are mounted on a 316 stainless steel frame and equipped with the latest PLC technology. System design features incorporate:

- Marine-grade cabinet for saltwater applications
- Documented Process Hazard Analysis (PHA)
- Advanced safety relays
- Redundant interlock control logic
- 40+ point Quality Control inspection



Monitoring and innovative automation and communication technology for increased operational efficiency

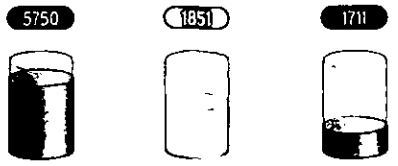
The PURATE program offers a variety of options to monitor the key performance indicators of the generator and to efficiently manage the inventory of the two pre-cursors (PURATE and sulfuric acid).

LOCALLY
from the generator PLC
interfaced with your DCS/PLC

REMOTELY
monitored via the performance
dashboard website

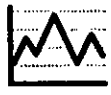
In an upset situation, such as low precursor inventory or low water flow, an alert message can be sent to the local operator or the Nalco service representative for immediate corrective action. This process minimizes the risk of potential downtime caused by out-of-product situations or change of operational conditions.

Inventory Management



NORMAL RE-ORDER CRITICAL

24/7 DATA TRACKING



ClO_2 levels and corrosion rates with 3D TRASAR™ controller technology can be tracked 24/7 to assure peak performance and extended heat exchanger life.

- SIMPLE
- COST EFFECTIVE
- RELIABLE

Strong Support Organization
Experienced Engineering/
ClO_2 Team

Engineering Resources
Generator Housing and
Tank Equipment/Design

System Monitoring
Performance Management

On-Site ClO_2 Production
Best-in-Class Equipment
and Chemistry

Generator KPI On-Line
Tracking/Chemical Inventory
Management
Automation and Efficiency
Management

The PURATE program – delivering results with a positive impact on your bottom line

The benefits of the PURATE program have been validated in various case studies in multiple industries and applications.

DOCUMENTED PURATE BENEFITS	APPLICATION
Less Biocide Deliveries	
80% fewer deliveries compared to bleach	POWER PLANT
Reduction of Objectionable By-Products	
47% - 98%	POWER PLANT
100% – non-detectable	STEEL PLANT
Reduction of Corrosion Rates	
90% copper metallurgy	POWER PLANT
66% mild steel	REFINERY
Microbial Control Improvements	
> 90% reduction	REFINERY
Condenser Flow Increase	
4,400 GPM (+13%)	POWER PLANT
Condenser Inlet Temp Decrease	
0.9 - 2.7°F	POWER PLANT
Heat Exchanger Improvement	
400%	REFINERY
TCO (Total Cost of Operation) Reduction	
> $0.2M (-15%)	STEEL PLANT
$1.0 - 2.6M	POWER PLANT
$2.7M	PETROCHEMICAL PLANT

What customers say about PURATE

"The cost benefits from implementing PURATE are considered to be significant. Based on this finding, permanent installation was recommended."

Power Plant Engineer

"Even though there is no cost reduction for the biocide program, the operational benefits are very positive for us."

Power Plant Operations Manager

NALCO
An Ecolab Company

Nalco, an Ecolab Company
North America: Headquarters – 1601 West Diehl Road • Naperville, Illinois 60563 • USA
Nalco Champion – 7705 Highway 90-A • Sugar Land, Texas 77487 • USA
Europe: Richtistrasse 7 • 8304 Wallisellen • Switzerland
Asia Pacific: 2 International Business Park • #02-20 The Strategy Tower 2 • Singapore 609930
Latin America: Av. das Nações Unidas 17.891 • 6° Andar 04795-100 • São Paulo • SP • Brazil
www.purate.com

NALCO PURATE™

front label

A Precursor Chemical Solution for Use Only in the SVP-Pure™ Chlorine Dioxide Generator

This chemical solution is for the use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device that produces CHLORINE DIOXIDE absorbed into water. In addition to this precursor, the SVP-Pure Chlorine Dioxide Generator usually requires a feedstock of 78% sulfuric acid. Please refer to the SVP-Pure Maintenance and Operations Manual to ensure proper activation.

obsolete

FOR INDUSTIAL USE
KEEP OUT OF REACH OF CHILDREN
DANGER/PELIGRO

"Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)"

ACTIVE INGREDIENT:
Sodium Chlorate ($NaClO_3$) 40.0%
OTHER INGREDIENTS: 60.0%
TOTAL 100.0%

FIRST AID	
IF IN EYES	Hold eye open and flush with a directed stream of water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

In case of exposure emergency, call (800) 424-9300

NALCO COMPANY
1601 W. Diehl Road
Naperville, IL 60563-1198
(630) 305-1000

:EPA Reg. No 1706-242
:EPA Est. No. 49620-MS-1

Net Contents _____ Gallons

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Harmful if absorbed through the skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Wear goggles or face shield. When contact is likely, wear a PVC or rubber rainsuit and wash down rainsuit after each use. Wear protective gloves, plastic or rubber. Wear plastic or rubber safety toed boots. Leather and cloth impregnated with sodium chlorate are highly flammable and easily ignited with minor friction. Remove and wash contaminated clothing before re-use. Do not allow contaminated clothing to dry before washing clothing on-site. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic org. ns. Do not discharge effluent containin. s product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

CHEMICAL HAZARDS

Purate is a strong oxidizing agent. Do not contaminate with dirt, oils or organic matter of any sort. Contamination may cause violent chemical reactions, fire and explosion. Clean up all chemical spills immediately. Allowing spills to dry or concentrate may cause spontaneous combustion. In case of chemical spills, avoid bodily contact and wear appropriate protective equipment.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Change clothing when contaminated and wash on-site. Do not allow contaminated clothing to dry before washing clothing on-site.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User must wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

User must remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Do not allow contaminated clothing to dry before washing clothing on-site.

User must remove PPE immediately after handing this product. As soon as possible, wash thoroughly and change into clean clothing.

DIRECTIONS FOR USE

General Directions:

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Only for formulation as an antimicrobial for the following uses: Purate is for use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device installed to generate chlorine dioxide for the registered uses listed below. Feed rates for Purate are determined by the operator to achieve the desired production rate for chlorine dioxide. As described below, the appropriate production rate will depend on the severity of contamination, the degree of control desired, the size of the system and residual necessary for effective control. For all uses, the point of feed of chlorine dioxide must be below the water level to prevent volatilization of the chlorine dioxide. Chlorine dioxide must be added to the water stream at a point where adequate mixing and uniform distribution can occur.

Drinking Water Treatment

This product is approved for use in water treatment facilities that produce potable drinking water in compliance with the Safe Drinking Water Act. A typical dosage of chlorine dioxide for water systems is between 0.5 and 5 ppm on a continuous basis. Purate has been approved by the National Sanitation Foundation for use in drinking water systems.

INDUSTRIAL PROCESS WATER USES:

This product is approved for the control of microbial, algal and mollusk populations in industrial process or waste water at the sites listed below. The dosage of chlorine dioxide required is dependent on the specific use; see specific directions below. Purate may be used to treat the following aquatic sites:

Recirculating Cooling Water Towers

To control microbial and algal slime in recirculating cooling water systems, an intermittent or continuous application may be used. If using continuous feed, maintain residual chlorine dioxide concentrations between 0.1 – 1.0 ppm. If using intermittent feed, maintain a residual concentration of 0.1 – 5.0 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Once-Through Cooling Water Towers

To remove adult mollusks in once-through cooling water systems, and intermittent dose of 0.2-25 ppm necessary; the exact dose is dependent on the infestation present. If a continuous dose is preferred, apply chlorine dioxide at rates that maintain 0.25-2 ppm in the cooling water. To prevent settling and attachment of the free swimming larvae or mollusks (velligers), apply a continuous feed to achieve a residual of 0.1-0.5 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Textile processing water and pulp and paper process water

To control microorganisms that form slime in paper process water and that cause blockages of paper mill equipment, and to oxidize slime buildup already present, chlorine dioxide may be applied in an intermittent or continuous dose. Either

method of application must maintain a resi concentration of 0.1 – 5.0 ppm of chlo dioxide in the paper process water. If the system is badly fouled, it must be cleaned prior to treatment with chlorine dioxide. This product can be used as a slimicide for process water used in the manufacture of food-contact paper and paperboard.

Pasteurizer, cannery and retort water systems:
To control odor and reduce bacterial slime in cooling and warming waters such as canning, retort, and pasteurizer process water, chlorine dioxide may be added intermittently to achieve a dose of 0.4 ppm.

Impounded lake, pond and reservoir water, including industrial waste water
To control microorganisms and algae that cause unacceptable odors and slime, these aquatic sites may be treated with chlorine dioxide on an intermittent basis. Sufficient chlorine dioxide must be added to reach a residual concentration of 5 ppm, in order to achieve adequate control of odor and slime caused by algae and microorganisms.

Sewage and wastewater systems
For (disinfection/sanitization) of sewage and wastewater, add chlorine dioxide to achieve a residual of up to 5 ppm. To control odors caused by sulfides associated with sewage and wastewater, a minimum of 5.2 ppm chlorine dioxide must be applied to oxidize 1 ppm sulfide (measured as sulfide ion) if the pH is between 5-9. A minimum of 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol if the pH is less than 8; if the pH is greater than 10, a minimum of 3.5 ppm chlorine dioxide is required.

Gas and oil recovery injection water; fracturing system fluids
(NOT APPROVED FOR USE IN CALIFORNIA)
To control sulfate reducing bacteria that form colloidal sulfur or iron sulfides, and to oxidize sulfides, a continuous or intermittent application of chlorine dioxide may be used. If using a continuous feed of chlorine dioxide, apply it at rates slightly higher than the sulfide oxidative demand, as determined by a sulfide demand study. If using an intermittent feed, apply a shock dose of 200-3000 ppm chlorine dioxide. Please be certain that this product is not discharged into lakes, streams, ponds, oceans or other waters.

Ultrasonic tank water; photo processing wash water; and leather processing solutions
(NOT APPROVED FOR USE IN CALIFORNIA)
To control slime caused by microbial populations in these liquid systems, a residual chlorine dioxide concentration between 0.25 to 5.0 ppm is necessary. Chlorine dioxide may be added intermittently, or on a continuous basis to achieve the desired residual; the concentration maintained is dependent on individual systems.

Agricultural Water Uses (Non-Food Contact)
Purate is approved for use in the control of microbial populations in water for the following agricultural non-food contact uses: Drinking water treatment for animals not meant for human consumption (e.g., show and research animals, animals raised for fur to wool; horses, mules or donkeys). Treatment of drinking water tanks for livestock not meant for human consumption can be achieved by intermittent or continuous application of chloride dioxide. Either method must be monitored, to achieve a residual concentration between 1.0 – 2.0 ppm chlorine dioxide.

This product also may be used to generate chlorine dioxide for non-pesticidal uses such as:

Oxidizing nutrients	Reducing sludge
Eliminating odors	Clarifying/precipitating organic and inorganic particles
Controlling scale & deposits	Reducing TOC (Total Organic Carbon)
Controlling iron & manganese	Reducing color
Controlling corrosion	Destruction of odors caused by phenolic simple cyanides and sulfides by chemical oxidation

Storage and Disposal Statement for non-refillable & refillable containers:

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in the original container. Store at ambient temperatures from 40°F to 100°F. Store separately from sulfuric acid precursor and all other acids. Store in fire-resistant area separate from incompatible materials such as acids, powdered metals, organic chemicals, combustible materials and dirt. Clean up spills immediately.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

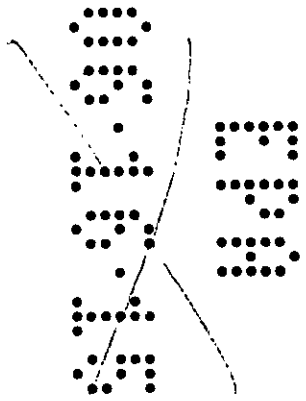
CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Clean container promptly

after emptying.
Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Alteratively, pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling or reconditioning. If recycling is unavailable, puncture and dispose of container in a sanitary landfill, or by incineration.
CONTAINER HANDLING: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

{Note to reviewer: The following is considered optional marketing language :}

1. Chlorine dioxide generated from Purate is an effective, broad spectrum biocide in challenging water conditions
2. Chlorine dioxide generated from Purate is effective at pH greater than 7.
3. Chlorine dioxide generated from Purate is effective at pH between 3-10.
4. Chlorine dioxide generated from Purate efficacy is not impacted in the pH range of 3-10.
5. Chlorine dioxide generated from Purate is more effective at lower concentrations at pHs greater than 7 compared to chlorine and bromine gas
6. The efficacy of chlorine dioxide generated from Purate is unaffected by ammonia, oil organic contamination.
7. Chlorine dioxide generated from Purate significantly reduces consumption by ammonia or organics loads such as oil contamination compared to chlorine-based biocide programs. Less chlorine dioxide is required to achieve similar performance
8. Because the use of chlorine dioxide generated from Purate allows for lower usage rates to maintain control of the system, it reduces the copper corrosion rates compared to sodium hypochlorite or other chlorine based biocides.
9. Copper corrosion rates can be reduced by using chlorine dioxide generated from Purate in comparison to sodium hypochlorite
10. Copper corrosion rates can be reduced by using chlorine dioxide generated from Purate in comparison to chlorine based products.
11. Copper corrosion potential can be reduced by using chlorine dioxide generated from Purate
12. Chlorine dioxide generated from Purate reduces corrosion potentials, helping to expand the life of assets such as condensers and cooling towers.
13. Chlorine dioxide generated from Purate penetrates, removes, controls or prevents biofilm in recirculating cooling towers, pasteurizer, cannery or retort water, textile or pulp and paper water, impound lakes, ponds or reservoir water including industrial waste water.
14. Chlorine dioxide generated from Purate can help remove, control or prevent biofilm in recirculating cooling towers, pasteurizer, cannery or retort water, textile or pulp and paper water, impound lakes, ponds or reservoir water including industrial waste water.
15. As a dissolved gas, chlorine dioxide penetrates and removes biofilm, helping to recover the performance of your heat exchangers (condenser and cooling tower).
16. Replacing Cl2 with chlorine dioxide generated from Purate can decrease the micro-fouling and increase the flow rate through the condenser
17. Replacing Cl2 with chlorine dioxide generated from Purate can decrease the micro-fouling and improve the pressure drop in the condenser

18. The formation of chlorinated by-p ıcts (THM, HAA,AOX) are minimized educed by using chlorine dioxide generated from Purate
19. The formation of objectionable by-products are minimized or reduced by using chlorine dioxide generated from Purate
20. By-products that are objectionable in discharges can be minimized or reduced using chlorine dioxide generated from Purate.
21. Environmentally objectionable by-products can be minimized or reduced by using chlorine dioxide generated from Purate.
22. Disinfection by-products in sewage and wastewater applications can be minimized by using chlorine dioxide generated from Purate as compared to chlorine gas or bromine gas
23. Chlorine dioxide generated from Purate minimizes the formation of chlorinated by-products (THM/HAA/AOX) helping to meet NPDES permit requirements.
24. Chlorine dioxide generated from Purate helps clean and loosen slime debris from recirculating cooling tower surfaces, pasteurizer, cannery or retort water surfaces, textile or pulp and paper water surfaces, impound lakes, ponds or reservoir water including industrial waste water.
25. Chlorine dioxide generated from Purate reduces the need for other chemicals.
26. Chlorine dioxide generated from Purate improves filter operation.
27. Chlorine dioxide generated from Purate is effective against adult and veliger forms of mussels including zebra mussels.
28. Addition of chlorine dioxide generated from Purate to the cooling water does not form corrosive by-products. Corrosion of copper metal surfaces is not accelerated by biocide treatment.
29. When used as directed chlorine dioxide generated from Purate is available for microbiological control rather than being consumed by inorganic-reducing substances in the cooling water.
30. Surface-active properties of Chlorine dioxide generated from Purate provide a cleansing action that minimizes under-deposit corrosion. This means improved heat transfer and lower operating costs.
31. Effective for use in hard waters at low use concentrations, which means that chlorine dioxide generated from Purate is a cost-effective microbiological treatment to complement water and cost savings associated with operating at high cycles of concentration.



Background

Liem, David

From: Fuller, Demson
Sent: Tuesday, October 13, 2015 1:34 PM
To: Fane, Linda
Cc: Kirkman, Janet; Henson, Wanda; Perry, Mark; Chao, Julie; Liem, David
Subject: FW: Revisions for submitted amendment on Purate (EPA Reg#1706-242)=FANE
Attachments: Comments on submitted amendment on Purate (EPA Reg#1706-242)=FANE

Importance: High

Hi Linda,

I touched base with Mark and what you have proposed below is acceptable. Please provide to David a copy of the label with the revised changes and we will move forward in processing it for approval.

Thanks!

Demson

From: Fane, Linda [mailto:lfane@nalco.com]
Sent: Monday, October 12, 2015 11:27 PM
To: Fuller, Demson; Henson, Wanda
Cc: Kirkman, Janet
Subject: Revisions for submitted amendment on Purate (EPA Reg#1706-242)=FANE
Importance: High

Hi Demson and Wanda,

Based on our discussion on 10/8/15, we've modified the optional marketing claims for the Purate label amendment that is currently in process (see claims 1-28 below). The changes include:

- We removed the term "broad spectrum" from the previous claim #1 and replaced in with a separate claim for each approved use site and corresponding target organism. So claim #1 is now replaced with claims #1-7
- For the pH claims, we've removed the Purate document from the Nalco/Ecolab website and will rewrite the literature so that the pH section of the document does not compare ClO2 from Purate with other AIs.
- We've rewritten the claims to add more clarity.
- Regarding the meeting with Emily Mitchell, Mark Perry and John Wood on 10/9/15 to discuss biofilm claims: We understand that the final decision on the use of the term "biofilm" for "slime" in an industrial product has not yet been made. So we have updated the claims to remove the term "biofilm" and have replaced it with the term "microbial slime".

I've highlighted in yellow the cla...s where we have made revisi...s to the text. Those highlighted in blue are now acceptable based on Nalco's removal and eventual modification of the Purate literature on our website. Those that are not highlighted were approved by EPA based on the information provided by David Liem on 9/25/15 (attached).

We'd appreciate it if you would review these change to confirm that they are now acceptable. Based on your feedback, I can provide EPA a clean/updated master label with the claims.

1. Chlorine dioxide is an effective biocide against microbial and algal slime in challenging water conditions in recirculating cooling water towers.
2. Chlorine dioxide is an effective biocide against adult mollusks in challenging water conditions in once-through cooling water towers.
3. Chlorine dioxide is an effective biocide against microorganisms that form slime in challenging water conditions in textile processing water.
4. Chlorine dioxide is an effective biocide against microorganisms that form slime in challenging water conditions in paper process water.
5. Chlorine dioxide is an effective biocide against bacterial slime in challenging water conditions in pasteurizer [, cannery] [and] [, retort water systems].
6. Chlorine dioxide is an effective biocide against microorganisms and algae that cause unacceptable odors and slime in challenging water conditions in [impound lake water] [,] [pond water] [reservoir water] [industrial waste water]
7. Chlorine dioxide is an effective biocide against slime caused by microbial populations in challenging water conditions in [gas and oil recovery injection water] [and] [fracturing system fluids]
8. Chlorine dioxide generated from Purate is effective at pH greater than 7.
9. Chlorine dioxide generated from Purate is effective at pH between 3-10.
10. Chlorine dioxide generated from Purate efficacy is not impacted in the pH range of 3-10.
11. The efficacy of chlorine dioxide generated from Purate is unaffected by ammonia, oil or organic contamination in cooling water or drinking water systems.
12. Because the use of chlorine dioxide generated from Purate allows for lower usage rates to maintain control of the system, it reduces the copper corrosion rates
13. Copper corrosion potential can be reduced by using chlorine dioxide generated from Purate
14. Chlorine dioxide generated from Purate reduces corrosion potentials, helping to expand the life of assets such as condensers and cooling towers.
15. Chlorine dioxide generated from Purate penetrates, removes, controls or prevents microbial slime in recirculating cooling towers, pasteurizer, cannery or retort water, textile or pulp and paper water, impound lakes, ponds or reservoir water including industrial waste water.
16. Chlorine dioxide generated from Purate can help remove, control or prevent microbial slime in recirculating cooling towers, pasteurizer, cannery or retort water, textile or pulp and paper water, impound lakes, ponds or reservoir water including industrial waste water.
17. As a dissolved gas, chlorine dioxide penetrates and removes microbial slime, helping to recover the performance of your heat exchangers (condenser and cooling tower).
18. Replacing Cl2 with chlorine dioxide generated from Purate can decrease the micro-fouling and increase the flow rate through the condenser

19. Replacing Cl2 with chlorine di .e generated from Purate can dec .e the micro-fouling and improve the pressure drop in the condenser
20. Chlorine dioxide generated from Purate helps clean and loosen slime debris from recirculating cooling tower surfaces, pasteurizer, cannery or retort water surfaces, textile or pulp and paper water surfaces, impound lakes, ponds or reservoir water including industrial waste water.
21. Chlorine dioxide generated from Purate reduces the need for corrosion inhibiting chemicals in cooling water applications
22. Chlorine dioxide generated from Purate improves filter operation.
23. Chlorine dioxide generated from Purate is effective against adult and veliger forms of mussels including zebra mussels.
24. Addition of chlorine dioxide generated from Purate to the cooling water does not form corrosive by-products. Corrosion of copper metal surfaces is not accelerated by biocide treatment.
25. When used as directed, chlorine dioxide generated from Purate is available for microbiological control in cooling water rather than being consumed by inorganic-reducing substances in the cooling water.
26. When used as directed, chlorine dioxide generated from Purate is available for microbiological control in drinking water rather than being consumed by inorganic-reducing substances in the drinking water.
27. Surface-active properties of Chlorine dioxide generated from Purate provide a cleansing action that minimizes under-deposit corrosion. This means improved heat transfer and lower operating costs.
28. Effective for use in hard waters at low use concentrations, which means that chlorine dioxide generated from Purate is a cost-effective microbiological treatment in cooling water to complement water and cost savings associated with operating at high cycles of concentration.

Thank you for your assistance,
Linda

Linda J. Fane
Senior Manager
GLOBAL REGULATORY AFFAIRS

NALCO| An Ecolab Company 1601 W-DIEHL RD, NAPERVILLE, IL 60563
T 630 305 1455 **F** 630 305 2985 **E** lfane@nalco.com

From: Fuller, Demson [mailto:Fuller.Demson@epa.gov]
Sent: Thursday, October 08, 2015 10:13 AM
To: Fuller, Demson; Fane, Linda
Cc: Kirkman, Janet; Henson, Wanda
Subject: RE: Comments on submitted amendment on Purate (EPA Reg#1706-242)=FANE

Hi Linda,

In preparation for our meeting at 11:30 EST, I wanted to give you some feedback on bullet on "by-product" claims. I followed up with our risk assessment team regarding this question. You will need to provide information to support the

claim that chlorine dioxide is producing the products in negligible amounts. You may provide public literature that supports this claim or conduct a study on your own. This information is non-guideline and is not normally required to support a pesticide product application but is necessary to support the above claim.

We can discussion further during our call. Thanks!

Demson

From: Fuller, Demson [mailto:Fuller.Demson@epa.gov]
Sent: Wednesday, September 30, 2015 4:27 PM
To: Fane, Linda
Cc: Kirkman, Janet; Henson, Wanda
Subject: RE: Comments on submitted amendment on Purate (EPA Reg#1706-242)=FANE

Hi Linda,

Sorry I missed your message from this past Monday. The due date for this action is 10/14. Are you available next Thursday to chat? I can set up a half hour meeting from 11:30-12? Is that okay?

Demson

From: Fane, Linda [mailto:lfane@nalco.com]
Sent: Monday, September 28, 2015 5:51 PM
To: Fuller, Demson
Cc: Kirkman, Janet
Subject: FW: Comments on submitted amendment on Purate (EPA Reg#1706-242)=FANE
Importance: High

Hi Demson,

Thank you for calling today and informing me to send Nalco/Ecolab questions regarding the label amendment review to your attention. For your reference, I've attached a copy of the label that was submitted with the optional marketing language highlighted in yellow.

I wanted to send you my initial questions so that you can review them prior to a phone conversation.

Timing:

1. The first question we have is how much time does Nalco/Ecolab have to respond to EPA's comments regarding this label amendment? We want to make sure that we respond in time to get the marketing claims that are acceptable on a revised label. We want to avoid a complete rejection of the amendment submission.

Biofilm and Slime Claims:

1. It is our understanding that for non-public health products (such as Purate 1706-242), EPA allows the use of the term "biofilm" in claims as long as the term

"slime" is in the claim that on the EPA approved label. s dates back to the 2008 presentation by the AD Director where clarification on biofilm claims was provided.

2. Claims 13, 14 and 15 use the term "biofilm" in place of "slime". Slime is included in the use sites that are on the EPA approved label. We do not make any public health claims, so we do not understand why these claims are not acceptable.

Byproduct claims:

1. We'd like to understand what specifically would need to be provided by EPA to allow the 18-21 & 23 claims. Mr. Liem said that data "may" need to be provided (see Mr. Liem's comments in red below). Can you provide additional information on what data is needed and if we are required to submit it for review?
2. Claim Nos. 18-21& 23: The claims you are proposing to minimize or reduce (i.e., by-products, THM, HAA, AOX) may need to be further substantiated with data and reviewed by our science branches.

pH Claims:

1. We'd like to understand how claims 2, 3 and 4 (system pH) are tied to public health claims. This is not clear to us.

Demson, can we discuss this further via telephone? We'd like to provide EPA with a clean copy of the Purate label with as many of the claims that can be approved at this time. But before we do this, we need more information on why some of the claims are unacceptable and what revisions we can make to the claim language to make them acceptable.

Thank you,

Linda J. Fane
Senior Manager
GLOBAL REGULATORY AFFAIRS

NALCO| An Ecolab Company 1601 W DIEHL RD, NAPERVILLE, IL 60563
T 630 305 1455 **F** 630 305 2985 **E** lfane@nalco.com

From: Fane, Linda
Sent: Monday, September 28, 2015 8:31 AM
To: 'Liem, David'
Subject: RE: Comments on submitted amendment on Purate (EPA Reg#1706-242)=FANE
Importance: High

Thank you for sending this information David. I'm coordinating with the business so we can review the information and respond.

What is our deadline for sendin revised label with the update narketing text to you?

We may have questions or need clarification. I will call you to discuss these over the phone.

Thanks again and have a great day!

Linda J. Fane
Senior Manager
GLOBAL REGULATORY AFFAIRS

NALCO| An Ecolab Company 1601 W DIEHL RD, NAPERVILLE, IL 60563
T 630 305 1455 **F** 630 305 2985 **E** lfane@naico.com

From: Liem, David [mailto:Liem.David@epa.gov]
Sent: Friday, September 25, 2015 1:55 PM
To: Fane, Linda
Subject: Comments on submitted amendment on Purate (EPA Reg#1706-242)=FANE
Importance: *High*

Dear Ms Fane

After reviewing your submitted amendment for Purate (EPA Reg#1706-242) to add optional marketing text, the following marketing claims were not acceptable and must be removed because they are false and misleading, per 40CFR156(10)(5). (Also refer to PR Notice 93-6 –False and misleading statement and the OPP Label Review Manual (Chapter's 4 and 12), and DIS/TSS#1 and Efficacy#810:

- Claim No. 1: The "broad spectrum biocide" claim must be removed. The claim is comprehensive and can be construed as effective against public health organisms. No efficacy data were submitted to support these claims

- Claim Nos. 2 – 5: - Based on your posted website, the pH claims correlate with public health claims (http://www.ecolab.com/~/media/Ecolab/Ecolab%20Home/Documents/DocumentLibrary/Brochures/Nalco%20WPS/B1423PurateOnSiteChlorideDioxideGeneration.ashx). This may imply that the product has a unique characteristic because of its composition

- Claim No. 6: The claim is comprehensive and can be construed as effective against public health organisms. Alternatively, you can qualify "ammonia or oil organic contamination" with non-public health claims (e.g., oil organic contamination found in gas and oil recovery injection water)

- Claim Nos. 7- 10: The claims are comparative. In addition, for Claim # 7, the claim is comprehensive (see comment #6)

- Claim Nos. 13-15: No efficacy data were submitted to support "biofilm" claims. The claims must be removed or, alternatively, "biofilm" must be qualified to "slime-forming bacteria"

- Claim Nos. 18-21& 23: The clain. , ou are proposing to minimize or redu ..e., by-products, THM, HAA, AOX) may need to be further substantiated with data and reviewed by our science branches.

- Claim No. 22: The claim is comprehensive and can be construed as effective against public health organisms. No efficacy data were submitted to support the claims. In addition, the claim is comparative

- Claim No. 25: The claim is comparative

- Claim Nos. 29 & 31 - The claims are comprehensive and can be construed as effective against public health organisms.
  No efficacy data were submitted to support these claims

Please resubmit you updated amendment, and if you have further questions please don't hesitate to contact me.

David Liem
Antimicrobial Division
Office of Pesticide Programs
Environmental Protection Agency
703-305-1284
Liem.david@epa.gov

NALCO
PURATE™

A Precursor Chemical Solution for Use Only in the SVP-Pure™ Chlorine Dioxide Generator

This chemical solution is for the use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device that produces CHLORINE DIOXIDE absorbed into water. In addition to this precursor, the SVP-Pure Chlorine Dioxide Generator usually requires a feedstock of 78% sulfuric acid. Please refer to the SVP-Pure Maintenance and Operations Manual to ensure proper activation.

FOR INDUSTIAL USE
KEEP OUT OF REACH OF CHILDREN
DANGER/PELIGRO

"Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)"

ACTIVE INGREDIENT:
Sodium Chlorate ($NaClO_3$) 40.0%
OTHER INGREDIENTS: 60.0%
TOTAL 100.0%

FIRST AID	
IF IN EYES	Hold eye open and flush with a directed stream of water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

In case of exposure emergency, call (800) 424-9300

NALCO COMPANY
1601 W. Diehl Road
Naperville, IL 60563-1198
(630) 305-1000

EPA Reg. No. 1706-242
EPA Est. No. 49620-MS-1

Net Contents _____ Gallons

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Harmful if absorbed through the skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Wear goggles or face shield. When contact is likely, wear a PVC or rubber rainsuit and wash down rainsuit after each use. Wear protective gloves, plastic or rubber. Wear plastic or rubber safety toed boots. Leather and cloth impregnated with sodium chlorate are highly flammable and easily ignited with minor friction. Remove and wash contaminated clothing before re-use. Do not allow contaminated clothing to dry before washing clothing on-site. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic orga s. Do not discharge effluent containing product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

CHEMICAL HAZARDS

Purate is a strong oxidizing agent. Do not contaminate with dirt, oils or organic matter of any sort. Contamination may cause violent chemical reactions, fire and explosion. Clean up all chemical spills immediately. Allowing spills to dry or concentrate may cause spontaneous combustion. In case of chemical spills, avoid bodily contact and wear appropriate protective equipment.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Change clothing when contaminated and wash on-site. Do not allow contaminated clothing to dry before washing clothing on-site.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User must wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

User must remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Do not allow contaminated clothing to dry before washing clothing on-site.

User must remove PPE immediately after handing this product. As soon as possible, wash thoroughly and change into clean clothing.

DIRECTIONS FOR USE

General Directions:

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Only for formulation as an antimicrobial for the following uses: Purate is for use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device installed to generate chlorine dioxide for the registered uses listed below. Feed rates for Purate are determined by the operator to achieve the desired production rate for chlorine dioxide. As described below, the appropriate production rate will depend on the severity of contamination, the degree of control desired, the size of the system and residual necessary for effective control. For all uses, the point of feed of chlorine dioxide must be below the water level to prevent volatilization of the chlorine dioxide. Chlorine dioxide must be added to the water stream at a point where adequate mixing and uniform distribution can occur.

Drinking Water Treatment

This product is approved for use in water treatment facilities that produce potable drinking water in compliance with the Safe Drinking Water Act. A typical dosage of chlorine dioxide for water systems is between 0.5 and 5 ppm on a continuous basis. Purate has been approved by the National Sanitation Foundation for use in drinking water systems.

INDUSTRIAL PROCESS WATER USES:

This product is approved for the control of microbial, algal and mollusk populations in industrial process or waste water at the sites listed below. The dosage of chlorine dioxide required is dependent on the specific use; see specific directions below. Purate may be used to treat the following aquatic sites:

Recirculating Cooling Water Towers

To control microbial and algal slime in recirculating cooling water systems, an intermittent or continuous application may be used. If using continuous feed, maintain residual chlorine dioxide concentrations between 0.1 – 1.0 ppm. If using intermittent feed, maintain a residual concentration of 0.1 – 5.0 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Once-Through Cooling Water Towers

To remove adult mollusks in once-through cooling water systems, and intermittent dose of 0.2-25 ppm necessary; the exact dose is dependent on the infestation present. If a continuous dose is preferred, apply chlorine dioxide at rates that maintain 0.25-2 ppm in the cooling water. To prevent settling and attachment of the free swimming larvae or mollusks (velligers), apply a continuous feed to achieve a residual of 0.1-0.5 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Textile processing water and pulp and paper process water

To control microorganisms that form slime in paper process water and that cause blockages of paper mill equipment, and to oxidize slime buildup already present, chlorine dioxide may be applied in an intermittent or continuous dose. Either

method of application must maintain a resi[illegible] concentration of 0.1 – 5.0 ppm of chlo[illegible]lioxide in the paper process water. If the system is badly fouled, it must be cleaned prior to treatment with chlorine dioxide. This product can be used as a slimicide for process water used in the manufacture of food-contact paper and paperboard.

Pasteurizer, cannery and retort water systems:
To control odor and reduce bacterial slime in cooling and warming waters such as canning, retort, and pasteurizer process water, chlorine dioxide may be added intermittently to achieve a dose of 0.4 ppm.

Impounded lake, pond and reservoir water, including industrial waste water
To control microorganisms and algae that cause unacceptable odors and slime, these aquatic sites may be treated with chlorine dioxide on an intermittent basis. Sufficient chlorine dioxide must be added to reach a residual concentration of 5 ppm, in order to achieve adequate control of odor and slime caused by algae and microorganisms.

Sewage and wastewater systems
For (disinfection/sanitization) of sewage and wastewater, add chlorine dioxide to achieve a residual of up to 5 ppm. To control odors caused by sulfides associated with sewage and wastewater, a minimum of 5.2 ppm chlorine dioxide must be applied to oxidize 1 ppm sulfide (measured as sulfide ion) if the pH is between 5-9. A minimum of 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol if the pH is less than 8; if the pH is greater than 10, a minimum of 3.5 ppm chlorine dioxide is required.

Gas and oil recovery injection water; fracturing system fluids
(NOT APPROVED FOR USE IN CALIFORNIA)
To control sulfate reducing bacteria that form colloidal sulfur or iron sulfides, and to oxidize sulfides, a continuous or intermittent application of chlorine dioxide may be used. If using a continuous feed of chlorine dioxide, apply it at rates slightly higher than the sulfide oxidative demand, as determined by a sulfide demand study. If using an intermittent feed, apply a shock dose of 200-3000 ppm chlorine dioxide. Please be certain that this product is not discharged into lakes, streams, ponds, oceans or other waters.

Ultrasonic tank water; photo processing wash water; and leather processing solutions
(NOT APPROVED FOR USE IN CALIFORNIA)
To control slime caused by microbial populations in these liquid systems, a residual chlorine dioxide concentration between 0.25 to 5.0 ppm is necessary. Chlorine dioxide may be added intermittently, or on a continuous basis to achieve the desired residual; the concentration maintained is dependent on individual systems.

Agricultural Water Uses (Non-Food Contact)
Purate is approved for use in the control of microbial populations in water for the following agricultural non-food contact uses: Drinking water treatment for animals not meant for human consumption (e.g., show and research animals, animals raised for fur to wool; horses, mules or donkeys). Treatment of drinking water tanks for livestock not meant for human consumption can be achieved by intermittent or continuous application of chloride dioxide. Either method must be monitored, to achieve a residual concentration between 1.0 – 2.0 ppm chlorine dioxide.

This product also may be used to generate chlorine dioxide for non-pesticidal uses such as:

Oxidizing nutrients	Reducing sludge
Eliminating odors	Clarifying/precipitating organic and inorganic particles
Controlling scale & deposits	Reducing TOC (Total Organic Carbon)
Controlling iron & manganese	Reducing color
Controlling corrosion	Destruction of odors caused by phenolic simple cyanides and sulfides by chemical oxidation

Storage and Disposal Statement for non-refillable & refillable containers:

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in the original container. Store at ambient temperatures from 40°F to 100°F. Store separately from sulfuric acid precursor and all other acids. Store in fire-resistant area separate from incompatible materials such as acids, powdered metals, organic chemicals, combustible materials and dirt. Clean up spills immediately.
PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Clean container promptly

after emptying.
Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Alteratively, pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling or reconditioning. If recycling is unavailable, puncture and dispose of container in a sanitary landfill, or by incineration.
CONTAINER HANDLING: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

{Note to reviewer: The following is considered optional marketing language :}

1. Chlorine dioxide is an effective biocide against microbial and algal slime in challenging water conditions in recirculating cooling water towers.
2. Chlorine dioxide is an effective biocide against adult mollusks in challenging water conditions in once-through cooling water towers.
3. Chlorine dioxide is an effective biocide against microorganisms that form slime in challenging water conditions in textile processing water.
4. Chlorine dioxide is an effective biocide against microorganisms that form slime in challenging water conditions in paper process water.
5. Chlorine dioxide is an effective biocide against bacterial slime in challenging water conditions in pasteurizer [, cannery] [and] [, retort water systems].
6. Chlorine dioxide is an effective biocide against microorganisms and algae that cause unacceptable odors and slime in challenging water conditions in [impound lake water] [,] [pond water] [reservoir water] [industrial waste water]
7. Chlorine dioxide is an effective biocide against slime caused by microbial populations in challenging water conditions in [gas and oil recovery injection water] [and] [fracturing system fluids]
8. Chlorine dioxide generated from Purate is effective at pH greater than 7.
9. Chlorine dioxide generated from Purate is effective at pH between 3-10.
10. Chlorine dioxide generated from Purate efficacy is not impacted in the pH range of 3-10.
11. The efficacy of chlorine dioxide generated from Purate is unaffected by ammonia, oil or organic contamination in cooling water or drinking water systems.
12. Because the use of chlorine dioxide generated from Purate allows for lower usage rates to maintain control of the system, it reduces the copper corrosion rates
13. Copper corrosion potential can be reduced by using chlorine dioxide generated from Purate
14. Chlorine dioxide generated from Purate reduces corrosion potentials, helping to expand the life of assets such as condensers and cooling towers.
15. Chlorine dioxide generated from Purate penetrates, removes, controls or prevents microbial slime in recirculating cooling towers, pasteurizer, cannery or retort water, textile or pulp and paper water, impound lakes, ponds or reservoir water including industrial waste water.
16. Chlorine dioxide generated from Purate can help remove, control or prevent microbial slime in recirculating cooling towers, pasteurizer, cannery or retort water, textile or pulp and paper water, impound lakes, ponds or reservoir water including industrial waste water.
17. As a dissolved gas, chlorine dioxide penetrates and removes microbial slime, helping to recover the performance of your heat exchangers (condenser and cooling tower).

18. Replacing Cl2 with chlorine dioxide generated from Purate can decrease the micro-fouling and increase the flow rate through the condenser
19. Replacing Cl2 with chlorine dioxide generated from Purate can decrease the micro-fouling and improve the pressure drop in the condenser
20. Chlorine dioxide generated from Purate helps clean and loosen slime debris from recirculating cooling tower surfaces, pasteurizer, cannery or retort water surfaces, textile or pulp and paper water surfaces, impound lakes, ponds or reservoir water including industrial waste water.
21. Chlorine dioxide generated from Purate reduces the need for corrosion inhibiting chemicals in cooling water applications
22. Chlorine dioxide generated from Purate improves filter operation.
23. Chlorine dioxide generated from Purate is effective against adult and veliger forms of mussels including zebra mussels.
24. Addition of chlorine dioxide generated from Purate to the cooling water does not form corrosive by-products. Corrosion of copper metal surfaces is not accelerated by biocide treatment.
25. When used as directed, chlorine dioxide generated from Purate is available for microbiological control in cooling water rather than being consumed by inorganic-reducing substances in the cooling water.
26. When used as directed, chlorine dioxide generated from Purate is available for microbiological control in drinking water rather than being consumed by inorganic-reducing substances in the drinking water.
27. Surface-active properties of Chlorine dioxide generated from Purate provide a cleansing action that minimizes under-deposit corrosion. This means improved heat transfer and lower operating costs.
28. Effective for use in hard waters at low use concentrations, which means that chlorine dioxide generated from Purate is a cost-effective microbiological treatment in cooling water to complement water and cost savings associated with operating at high cycles of concentration.

PROCESSING REQUEST

Reg. #: 1706-242 **Decision #: 505846**

Description: Alternate Brand Name per PRN 98-10.

Material Available Electronically (see PPLS):

☐ Electronic Label/Letter Dated:

☐ Other:

Material Sent (see jacket):

☐ Stamped Label/Letter Dated:

X☐ Notification Dated: June 17, 2015

☐ New CSF(s) Dated:

☐ Other:

File this coversheet and attached materials in the jacket. It must be well organized and clipped together, NOT STAPLED. Then give the jacket with the coversheet and materials to staff in the Information Services Center (ISC) (Room S-4900). If a jacket is full or only available as an image, please file materials in a new jacket and bring it down to the (ISC). For further information please call 703-605-0716.

Reviewer: Killian Swift

Division: Antimicrobials Division

Phone: 703- 308-6346 **Date: June 17, 2015**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

June 17, 2015

Ms. Linda J. Fane
Senior Manager: Regulatory Affairs
Nalco, an Ecolab Company
1601 West Diehl Road
Naperville, IL 60563

Subject: Notification per PRN 98-10 – Alternate Brand Name
Product Name: **Purate™**
EPA Registration Number: **1706-242**
Application Date: May 11, 2015
Decision Number: 505846

Dear Ms. Fane:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Antimicrobials Division (AD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The alternate brand name PurateDW has been added to the product record.

If you have any questions, you may contact Killian Swift at 703-308-6346 or via email at Swift.Killian@epa.gov.

Sincerely,

Demson Fuller, Product Manager 32
Regulatory Management Branch II
Antimicrobials Division (7510P)
Office of Pesticide Programs

RISK ASSIGNMENT FORM

Antimicrobial Division/Regulatory Management Branch II

A	Completed by Product Manager

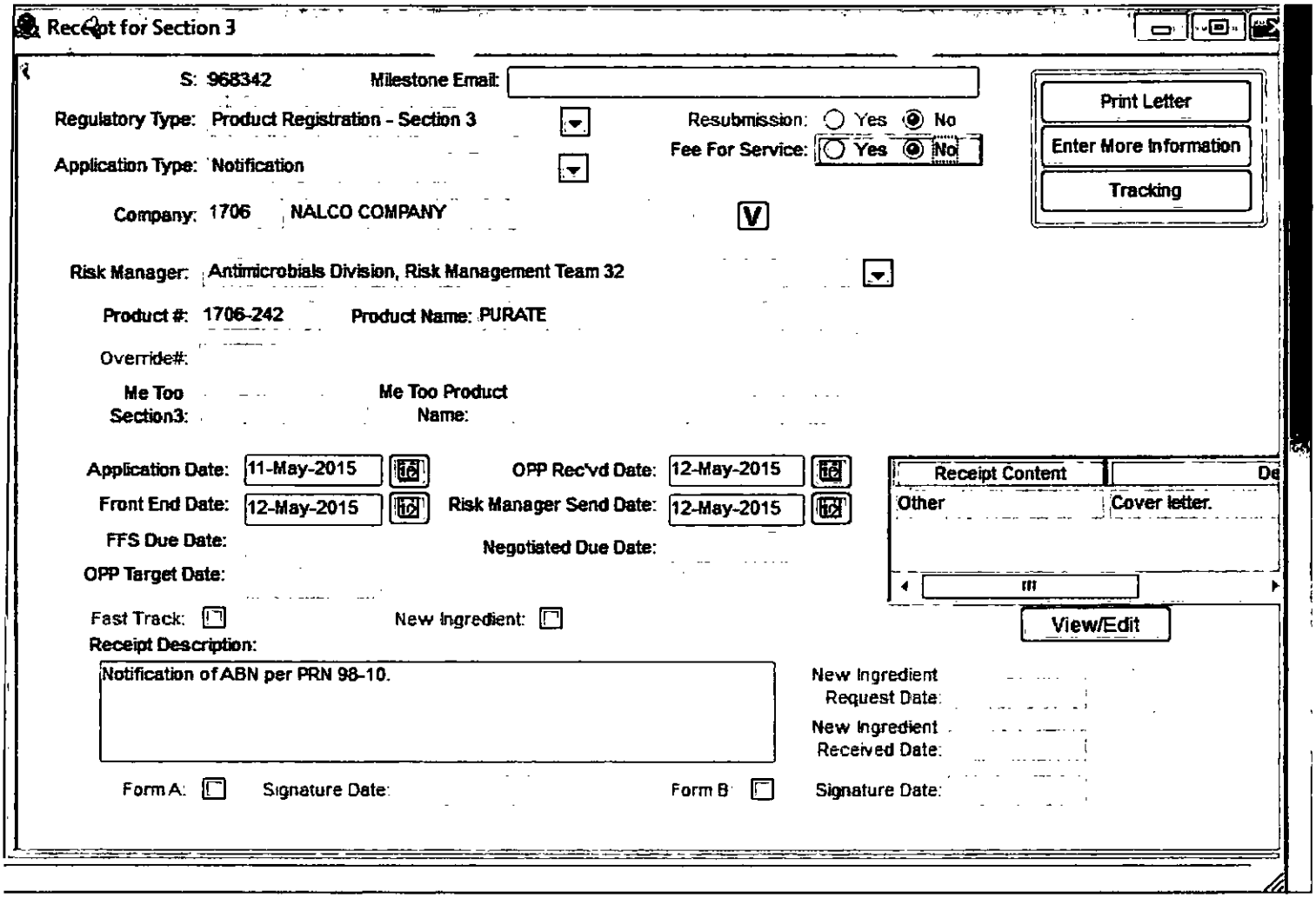
PRODUCT REVIEWER: Swift	RMBII TEAM 32
Type of Action: **Notification**	EPA File Symbol/Reg No. 1706-242

Decision No. 505846	Submission No. 968342	PRIA Action Code:
FQPA Action Code: 332	Non-FQPA Action Code:	PRIA FEE AMOUNT:

	MONTH	DAY	YEAR
APPLICATION DATE			2014
EPA PIN DATE			2014
DATE SENT TO SCIENCE			
DATE RECEIVED FROM SCIENCE			
DATE DUE TO PM			
DATE DUE OUT OF THE AGENCY	06	11	2015

Type of Data:	PSB Product	PSB Acute Toxicology	PSB Efficacy	RASSB Environmental Fate	RASSB Ecological Effects	RASSB Chronic Toxicology	RASSB Exposure/ Residue

ATTACHMENTS: -LABELING € -CSF(S) € -DATA € -OTHERS


Receipt for Section 3
S: 968342
Milestone Email:
Regulatory Type: Product Registration - Section 3
Resubmission: Yes No
Fee For Service: Yes No
Application Type: Notification
Print Letter
Enter More Information
Tracking
Company: 1706 NALCO COMPANY
Risk Manager: Antimicrobials Division, Risk Management Team 32
Product #: 1706-242
Product Name: PURATE
Override#:
Me Too Section3:
Me Too Product Name:
Application Date: 11-May-2015
OPP Rec'vd Date: 12-May-2015
Front End Date: 12-May-2015
Risk Manager Send Date: 12-May-2015
FFS Due Date:
Negotiated Due Date:
OPP Target Date:
Receipt Content
Other
Cover letter.
Fast Track:
New Ingredient:
View/Edit
Receipt Description:
Notification of ABN per PRN 98-10.
New Ingredient Request Date:
New Ingredient Received Date:
Form A:
Signature Date:
Form B
Signature Date:

KS
3-3-2

NALCO
An Ecolab Company

Linda Fane
Senior Manager
1601 W. DIEHL ROAD
NAPERVILLE, IL 60563-1198
lfane@nalco.com
630 305 1455
630 305 2945

May 11, 2015

Document Processing Desk (NOTIFY)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501

Attention: Mr. Demson Fuller PM-32

Subject: **ABN Notification**

Product: Purate (EPA Reg. No. 1706-242)

Dear Mr. Fuller:

Nalco Company is submitting a notification to add an alternate brand name to our registration under 1706-242. The alternate brand name is **PurateDW**.

In support of this notification I have included the EPA Application Form (EPA Form 8570-1).

If you have any questions, please contact me at 630-305-1455.

Regards,

Linda J. Fane
Senior Manager/Regulatory Affairs

Please read instructions on reverse before c... ng form. Form Approv... MB No. 2070-0060, Approval expires 2-28-95

EPA United States **Environmental Protection Agency** Washington, DC 20460

☐ **Registration** ☐ **Amendment** ☒ **Other**

OPP Identifier Number

Application for Pesticide – Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
1706-242	**Demson Fuller**	☒ None ☐ Restricted
4. Company/Product (Name)	PM#	
Purate ™	**32**	
5. Name and Address of Applicant *(Include ZIP Code)*	6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:	
Nalco, an Ecolab Company 1601 West Diehl Road Naperville, IL 60563	EPA Reg. Nos.	
☐ *Check if this is a new address*	Product Names	

Section - II

☐ Amendment – Explain below.
☐ Resubmission in response to Agency letter dated _____
☒ Notification – Explain Below.
☐ Final printed labels in response to Agency letter dated _____
☐ "Me Too" Application
☐ Other – Explain Below.

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

Notification of an alternate brand name (ABN) for this registration. The alternate brand name is PurateDW.

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulation at 40 CRF 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statements to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging		Water Soluble Packaging		2. Type of Container
☐ Yes ☒ No	☐ Yes ☒ No		☐ Yes ☒ No		☐ Metal ☒ Plastic ☐ Glass ☐ Paper ☒ Other (Specify) Bulk
***Certification must be submitted**	If "Yes" Unit Packaging wgt.	No. per Container	If "Yes" Packaging wgt.	No. per Container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
☐ Label ☒ Container	311 gal. plastic tote, bulk	☒ On Label ☐ On Labeling accompanying product

6. Manner in Which Label is Affixed to Product ☐ Lithograph ☒ Paper Glued ☐ Stenciled ☐ Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application..)*

Name	Title	Telephone No. (Include Area Code)
Linda J. Fane	Senior Manager, Regulatory Affairs	630-305-1455

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law

6. Date Application Received **(Stamped)**

2. Signature	3. Title
Linda J. Fane	Senior Manager, Regulatory Affairs
4. Typed Name	5. Date
Linda J. Fane	5-11-2015

EPA Form 8570-1 (Rev. 3-94) Previous editions are obsolete. **White – EPA File Copy (original)** **Yellow – Applicant copy**

Material Sent for Data Extraction

Reg. # 1706-242

Description: Anemomed

☒ Material(s) Sent to Data Extraction Contractors:

- ☐ New Stamped Label Dated _____
- ☐ Notification Dated _____
- ☒ New CSF(s) Dated 10/17/2014
- ☐ Other: _____

☐ Decision #: _____

☐ Other Action/Comments: letter mag. date 12/3/14.

File this coversheet and attached materials in the jacket. It must be well organized and clipped together, NOT STAPLED. Then give the jacket with the coversheet and materials to staff in the Information Services Center (ISC) (Room S-4900). If a jacket is full or only available as an image, please file materials in a new jacket and bring it down to the (ISC). For further information please call 703-605-0716.

Reviewer: DAVID LIEM

Phone: 305-1284 Division: HD

Date: 12/4/14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Linda J. Fane
Senior Manager
1601 West Diehl Rd.
Naperville, IL 60563-1198

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

DEC - 3 2014

Subject: Purate
EPA Registration No. 1706-242
Application Dated: October 17, 2014
Receipt Dated: October 20, 2014

Dear Ms. Fane:

This acknowledges the receipt of your Amendment application dated October 17, 2014 in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended.

Submission and Proposed Changes

Update the company name, address and registration number due to registration transfer for the Basic and Alternate#1 Formulation CSFs and update the vendor information for the Basic Formulation CSF (dated 10/17/14 pin punch 10/20/14). In addition add an Alternate #2 Formulation CSF for Nalco Purate™ product (EPA Reg# 1706-242).

General Comment:

Based on the review of the materials submitted, the updated Basic and Alternate Formulation #1 CSFs dated 10/17/14 (pin punch 10/20/14) and the addition of an Alternate Formulation #2 CSF dated 10/17/14 (pin punch 10/20/14) are **acceptable and these CFSs supersede all previously submitted CSFs.**

This amendment and this letter have been inserted in your file for future reference.

If you have further question on this letter, please contact David Liem by email at liem.david@epa.gov or call at 703-305-1284.

Sincerely
Wanda G. L. for
Demson Fuller
Product Manager (32)
Regulatory Management Branch II
Antimicrobial Division (7510P)

NALCO
An Ecolab Company

Linda Fane
Senior Manager
1601 W. DIEHL ROAD
NAPERVILLE, IL 60563-1198
lfane@nalco.com

T 630 305 1455
F 630 305 2945

October 17, 2014

Document Processing Desk (AMEND)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501

Attention: Mr. Demson Fuller PM-32

Subject: **CSF Amendment**

Product: Purate (EPA Reg. No. 1706-242)

Dear Mr. Fuller:

Nalco is submitting a CSF amendment for Purate (EPA Reg. No. 1706-242) to:

1. Update the company name, address and registration number due to registration transfer for the Basic and ALT1 formulas
2. Update the vendor information for the Basic formula
3. Add ALT2 formulation

In support of this label amendment, please find the following:

1. EPA Application Form 8570-1
2. Revised Basic and ALT1 formulas with the updated language highlighted in yellow
3. New ALT2 formulation
4. Previous EPA approved CSF for Basic dated July 30, 2009
5. Pervious EPA approved CSF for ALT1 dated September 16, 2013

If you have any questions, please contact me at 630-305-1455.

Regards,

Linda J. Fane
Senior Manager/Regulatory Affairs

NALCO
An Ecolab Company

Linda Fane
Senior Manager
1601 W. DIEHL ROAD
NAPERVILLE, IL 60563-1198
lfane@nalco.com

T 630 305 1455
F 630 305 2945

October 17, 2014

Document Processing Desk (AMEND)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501

Attention: Mr. Demson Fuller PM-32

Subject: **CSF Amendment**

Product: Purate (EPA Reg. No. 1706-242)

Dear Mr. Fuller:

Nalco is submitting a CSF amendment for Purate (EPA Reg. No. 1706-242) to:

1. Update the company name, address and registration number due to registration transfer for the Basic and ALT1 formulas
2. Update the vendor information for the Basic formula
3. Add ALT2 formulation

In support of this label amendment, please find the following:

1. EPA Application Form 8570-1
2. Revised Basic and ALT1 formulas with the updated language highlighted in yellow
3. New ALT2 formulation
4. Previous EPA approved CSF for Basic dated July 30, 2009
5. Pervious EPA approved CSF for ALT1 dated September 16, 2013

If you have any questions, please contact me at 630-305-1455.

Regards,

Linda J. Fane
Senior Manager/Regulatory Affairs

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

October 22, 2014

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

MS. RHONDA SCHULZ
ECOLAB, INC.
NALCO COMPANY
A SUBSIDIARY OF ECOLAB, INC.
370 N. WABASHA STREET
ST. PAUL, MN 55102-1390

PRODUCT NAME: PURATE
COMPANY NAME: NALCO COMPANY
OPP IDENTIFICATION NUMBER:
EPA FILE SYMBOL: 1706-242
EPA RECEIPT DATE: 10/20/14

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Antimicrobials Division, Risk Management Team 32, at (703) 308-6427.

Sincerely,

Front End Processing Staff
Information Services Branch
Information Technology & Resources Management Division

Fee for Service {959314+~

This package includes the following

- ○ New Registration
- ◉ Amendment

☐ Studies? ☐ Fee Waiver?

☐ volpay % Reduction: ___

for Division

- ◉ AD
- ○ BPPD
- ○ RD

Risk Mgr. 32

Receipt No. S-	959314
EPA File Symbol/Reg. No.	1706-242
Pin-Punch Date:	10/20/2014

☑ This item is NOT subject to FFS action.

Action Code:

Requested:

Granted:

Amount Due: $ _____

Parent/Child Decisions:

☐ Inert Cleared for Intended Use ☐ Uncleared Inert in Product

Reviewer: Jennifer Gaines Date: 10/21/14

Remarks:

Please read instructions on reverse before completing form. Form Approved. OMB 2070-0060, Approval expires 2-28-95

EPA U.S. Environmental Protection Agency, Washington, DC 20460

☐ Registration ☒ Amendment ☐ Other

OPP Identifier Number

Application for Pesticide – Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
1706-242	**Demson Fuller**	☒ None ☐ Restricted
4. Company/Product (Name)	PM#	
Purate ™	**32**	

5. Name and Address of Applicant *(Include ZIP Code)*
Nalco, an Ecolab Company
1601 West Diehl Road
Naperville, IL 60563

☐ *Check if this is a new address*

6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:
EPA Reg. Nos.

Product Names

Section - II

☒ Amendment – Explain below.
☐ Resubmission in response to Agency letter dated ____
☐ Notification – Explain Below.
☐ Final printed labels in response to Agency letter dated ____
☐ "Me Too" Application
☐ Other – Explain Below.

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

CSF Amendment to:

1. Update the company name, address and registration number due to registration transfer for Basic and ALT 1
2. Update the vendor name and address for Basic
3. Addition of alternate CSF – ALT2

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging		Water Soluble Packaging		2. Type of Container
☐ Yes ☒ No	☐ Yes ☒ No		☐ Yes ☒ No		☐ Metal ☒ Plastic ☐ Glass ☐ Paper ☒ Other (Specify) Bulk
***Certification must be submitted**	If "Yes" Unit Packaging wgt.	No. per Container	If "Yes" Packaging wgt.	No. per Container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
☐ Label ☒ Container	311 gal. plastic tote, bulk	☒ On Label ☐ On Labeling accompanying product

6. Manner in Which Label is Affixed to Product ☐ Lithograph ☒ Paper Glued ☐ Stenciled ☐ Other ____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Linda J. Fane	Senior Manager, Regulatory Affairs	630-305-1455

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law

2. Signature	3. Title	6. Date Application Received (Stamped)
Linda Fane	Senior Manager, Regulatory Affairs	
4. Typed Name	5. Date	
Linda J. Fane	10-17-2014	

EPA Form 8570-1 (Rev. 3-94) Previous editions are obsolete. **White – EPA File Copy (original)** **Yellow – Applicant copy**

Decision #: 497109
DP #: (423774)
NON PRIA
Parent DP #:
Submission #: 959314
E-Sub #:

DATA PACKAGE BEAN SHEET

Date: 07-Nov-2014

* * * Registration Information * * *

Registration: 1706-242 - PURATE

Company: 1706 - NALCO COMPANY

Risk Manager: RM 32 - Sharon Carlisle - (703) 308-6427 Room# PY1 S-8913

Risk Manager Reviewer: David Liem DLIEM

Sent Date: _____ PRIA Due Date: 18-Jan-2015 Edited Due Date: _____

Type of Registration: Product Registration - Section 3

Action Desc: (362) FORMULA CHANGE;TECHNICAL;

Ingredients: 073301, Sodium chlorate(40%)

* * * Data Package Information * * *

Expedite: ◯ Yes ● No Date Sent: 07-Nov-2014 Due Back: _____

DP Ingredient: 073301, Sodium chlorate

DP Title: Minor Formulation Amendment

CSF Included: ◯ Yes ● No Label Included: ◯ Yes ● No Parent DP #: _____

	Assigned To	Date In	Date Out	
Organization:	AD / PSB			Last Possible Science Due Date: 04-Dec-2014
Team Name:	CTT			Science Due Date:
Reviewer Name:				Sub Data Package Due Date:
Contractor Name:				

* * * Studies Sent for Review * * *

No Studies

* * * Additional Data Package for this Decision * * *

No Additional Data Packages

* * * Data Package Instructions * * *

This is not a PRIA. No technical review is needed.

Please review the attached minor formulation amendment. If you have any questions, please touch base with David Liem. Thank you.

Demson

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

EPA United States Environmental Protection Agency **Office of Pesticide Programs**

Antimicrobials Division (AD)
November 19, 2014

EPA Reg#: 1706-242		DP Barcode: 423774	
		Submission #: 959314	
Product name: **Purate**		Registrant: Nalco Company	
Reviewer's name: Salvador Rodriguez		AD/PSB/CTT- Product Chemistry	
Agency due date: 01/18/15		PSB received date: 11/19/14	
CTT received date: 11/19/14		Science due date: 12/04/14	
Formulation type: EUP			
Integrated system: []	Non-integrated system:[X]	Food use: []	Non-food use: [X]
Action Code: 362		Date Completed: 11/19/2014	

PC Code	CAS #	Active Ingredient Names	% wt (label)
073301	7775-09-9	Sodium Chlorate	40.0

Chemistry Reviewer #2

Test Lab: N/A	
MRID(s): N/A	
Approver: Karen P. Hicks	Approved date: 11/19/2014
Guideline:	
Comments:	

11/26/14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

EPA United States Environmental Protection Agency **Office of Pesticide Programs**

Antimicrobials Division (AD)

November 19, 2014

MEMORANDUM

Subject: Product Chemistry Review for EPA Reg # 1706-242
Product name: **Purate**
DP #: 423774

From: Salvador Rodriguez, Chemist
Product Science Branch, CT Team
Antimicrobials Division (7510P)

Thru: Karen P. Hicks, CT Team Leader
Product Science Branch
Antimicrobials Division (7510P)

To: Demson Fuller/ David Liem
PM Team 32
Antimicrobials Division (7510P)

APPLICANT: Nalco Company

Action code: 362

Due date: 01/18/15

Product Formulation
Active Ingredient (AI):

	% by wt.
Sodium Chlorate	40.0

BACKGROUND:

The registrant, Nalco Company, is submitting a Confidential Statement of Formula for the alternate # 2 formulation, to support the registration for the product **Purate.** The product chemistry reviewer has received the following documents:

- Cover letter, dated 10/17/14.
- Confidential Statement of Formula, 10/17/14, for the alternate # 2 formulation.
- Confidential Statement of Formula (CSF), dated 07/30/2009, for the basic formulation. (Reference).

FINDINGS:

1. The CSF, dated 10/17/14, for the alternate # 2 formulation is revised.
2. The CSF and the label have the same nominal concentrations for the active ingredient.
3. All certified limits meet the EPA 40 CFR standard certified limits.

CONCLUSIONS:

Product Science Branch of Antimicrobials Division finds the proposed CSF for the alternate # 2 formulation, dated 10/17/14, for the disinfectant, sanitizer, insecticide, miticide, algaecide, molluscicide, non-integrated, non-food use, end-use product **EPARN: 1706-242** to be acceptable.

DATA PACKAGE BEAN SHEET

Date: 18-Nov-2014

Decision #: 497109
DP #: (423774)
NON PRIA
Parent DP #:
Submission #: 959314
E-Sub #:

EVE

*** Registration Information ***

Registration: 1706-242 - PURATE

Company: 1706 - NALCO COMPANY

Risk Manager: RM 32 - Sharon Carlisle - (703) 308-6427 Room# PY1 S-8913

Risk Manager Reviewer: David Liem DLIEM

Sent Date: _____ PRIA Due Date: 18-Jan-2015 Edited Due Date: _____

Type of Registration: Product Registration - Section 3

Action Desc: (362) FORMULA CHANGE;TECHNICAL;

Ingredients: 073301, Sodium chlorate(40%)

*** Data Package Information ***

late from regulatory

Expedite: ◯ Yes ● No Date Sent: 07-Nov-2014 Due Back: _____

DP Ingredient: 073301, Sodium chlorate

DP Title: Minor Formulation Amendment

CSF Included: ◯ Yes ● No Label Included: ◯ Yes ● No Parent DP #: _____

Assigned To	Date In	Date Out	
Organization: AD / PSB	14-Nov-2014		Last Possible Science Due Date: 04-Dec-2014
Team Name: CTT	17-Nov-2014		Science Due Date:
Reviewer Name: Rodriguez, Salvador	18-Nov-2014	11/19/14	Sub Data Package Due Date:
Contractor Name:			

*** Studies Sent for Review ***

No Studies

*** Additional Data Package for this Decision ***

No Additional Data Packages

*** Data Package Instructions ***

This is not a PRIA. No technical review is needed.

Please review the attached minor formulation amendment. If you have any questions, please touch base with David Liem. Thank you.

Demson

NALCO
An Ecolab Company

Linda Fane
Senior Manager, Regulatory Affairs
1601 W. DIEHL ROAD
NAPERVILLE, IL 60563-1198
lfane@nalco.com
T 630 305 1455
F 630 305 2945

October 7, 2014

Document Processing Desk (FPL)
Office of Pesticide Programs (7510P)
U.S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501

Attention: Demson Fuller
Product Manager 32
Antimicrobials Division

Subject: **Final Printed Label**
Product: PURATE™ (EPA Reg. No. 1706-242)

Dear Mr. Fuller:

Nalco Company is submitting a final printed label for Purate (1706-242) in response to the Agency letter of September 29, 2014.

In support of this submission the following is enclosed:

1. Application Form (EPA Form 8570-1)
2. One copy of the final printed label
3. The Agency letter dated September 29, 2014

If you have any questions, please contact me at 630-305-1455.

Regards,

Linda J. Fane
Senior Manager

Please read instructions on reverse before complet. n. Form Approved. O. . 2070-0060, Approval expires 2-28-95

EPA	United States **Environmental Protection Agency** Washington, DC 20460	☐ **Registration** ☐ **Amendment** ☒ **Other**	OPP Identifier Number

Application for Pesticide – Section I

1. Company/Product Number 1706-242	2. EPA Product Manager Demson Fuller	3. Proposed Classification ☒ None ☐ Restricted
4. Company/Product (Name) **Purate ™**	PM# 32	
5. Name and Address of Applicant *(Include ZIP Code)* Nalco, an Ecolab Company 1601 West Diehl Road Naperville, IL 60563 ☐ *Check if this is a new address*	6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. Nos. Product Names	

Section - II

☐ Amendment – Explain below.
☐ Resubmission in response to Agency letter dated _____
☐ Notification – Explain Below.
☒ Final printed labels in response to Agency letter dated September 29, 2014
☐ "Me Too" Application
☐ Other – Explain Below.

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

Submission of the final printed label in response to the Agency letter dated September 29, 2014.

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
☐ Yes ☒ No ** Certification must be submitted*	☐ Yes ☒ No If "Yes" Unit Packaging wgt. / No. per Container	☐ Yes ☒ No If "Yes" Packaging wgt. / No. per Container	☐ Metal ☒ Plastic ☐ Glass ☐ Paper ☒ Other (Specify) Bulk

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
☐ Label ☒ Container	311 gal. plastic tote, bulk	☒ On Label ☐ On Labeling accompanying product

6. Manner in Which Label is Affixed to Product: ☐ Lithograph ☒ Paper Glued ☐ Stenciled ☐ Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Linda J. Fane	Senior Manager, Regulatory Affairs	630-305-1455

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law

2. Signature Linda J Fane	3. Title Senior Manager, Regulatory Affairs	6. Date Application Received (Stamped)
4. Typed Name Linda J. Fane	5. Date 10-7-14	

EPA Form 8570-1 (Rev. 3-94) Previous editions are obsolete. White – EPA File Copy (original) Yellow – Applicant copy

NALCO
PURATE™

A Precursor Chemical Solution for Use Only in the SVP-Pure™ Chlorine Dioxide Generator
This chemical solution is for the use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device that produces CHLORINE DIOXIDE absorbed into water. In addition to this precursor, the SVP-Pure Chlorine Dioxide Generator usually requires a feedstock of 78% sulfuric acid. Please refer to the SVP-Pure Maintenance and Operations Manual to ensure proper activation.

FOR INDUSTIAL USE
KEEP OUT OF REACH OF CHILDREN
DANGER/PELIGRO

"Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)"

ACTIVE INGREDIENT:
Sodium Chlorate ($NaClO_3$) 40.0%
OTHER INGREDIENTS: 60.0%
TOTAL 100.0%

FIRST AID	
IF IN EYES	Hold eye open and flush with a directed stream of water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

In case of exposure emergency, call (800) 424-9300

NALCO COMPANY
1601 W. Diehl Road
Naperville, IL 60563-1198
(630) 305-1000

EPA Reg. No. 1706-242
EPA Est. No. 49620-MS-1 _____

Net Contents _____ Gallons

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Harmful if absorbed through the skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Wear goggles or face shield. When contact is likely, wear a PVC or rubber rainsuit and wash down rainsuit after each use. Wear protective gloves, plastic or rubber. Wear plastic or rubber safety toed boots. Leather and cloth impregnated with sodium chlorate are highly flammable and easily ignited with minor friction. Remove and wash contaminated clothing before re-use. Do not allow contaminated clothing to dry before washing clothing on-site. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

CHEMICAL HAZARDS

Purate is a strong oxidizing agent. Do not contaminate with dirt, oils or organic matter of any sort. Contamination may cause violent chemical reactions, fire and explosion. Clean up all chemical spills immediately. Allowing spills to dry or concentrate may cause spontaneous combustion. In case of chemical spills, avoid bodily contact and wear appropriate protective equipment.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Change clothing when contaminated and wash on-site. Do not allow contaminated clothing to dry before washing clothing on-site.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User must wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

User must remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Do not allow contaminated clothing to dry before washing clothing on-site.

User must remove PPE immediately after handing this product. As soon as possible, wash thoroughly and change into clean clothing.

DIRECTIONS FOR USE

General Directions:
It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Only for formulation as an antimicrobial for the following uses: Purate is for use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device installed to generate chlorine dioxide for the registered uses listed below. Feed rates for Purate are determined by the operator to achieve the desired production rate for chlorine dioxide. As described below, the appropriate production rate will depend on the severity of contamination, the degree of control desired, the size of the system and residual necessary for effective control. For all uses, the point of feed of chlorine dioxide must be below the water level to prevent volatilization of the chlorine dioxide. Chlorine dioxide must be added to the water stream at a point where adequate mixing and uniform distribution can occur.

Drinking Water Treatment
This product is approved for use in water treatment facilities that produce potable drinking water in compliance with the Safe Drinking Water Act. A typical dosage of chlorine dioxide for water systems is between 0.5 and 5 ppm on a continuous basis. Purate has been approved by the National Sanitation Foundation for use in drinking water systems.

INDUSTRIAL PROCESS WATER USES:

This product is approved for the control of microbial, algal and mollusk populations in industrial process or waste water at the sites listed below. The dosage of chlorine dioxide required is dependent on the specific use; see specific directions below. Purate may be used to treat the following aquatic sites:

Recirculating Cooling Water Towers
To control microbial and algal slime in recirculating cooling water systems, an intermittent or continuous application may be used. If using continuous feed, maintain residual chlorine dioxide concentrations between 0.1 – 1.0 ppm. If using intermittent feed, maintain a residual concentration of 0.1 – 5.0 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Once-Through Cooling Water Towers
To remove adult mollusks in once-through cooling water systems, and intermittent dose of 0.2-25 ppm necessary; the exact dose is dependent on the infestation present. If a continuous dose is preferred, apply chlorine dioxide at rates that maintain 0.25-2 ppm in the cooling water. To prevent settling and attachment of the free swimming larvae or mollusks (velligers), apply a continuous feed to achieve a residual of 0.1-0.5 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Textile processing water and pulp and paper process water
To control microorganisms that form slime in paper process water and that cause blockages of paper mill equipment, and to oxidize slime buildup already present, chlorine dioxide may be applied in an intermittent or continuous dose. Either method of application must maintain a residual concentration of 0.1 – 5.0 ppm of chlorine dioxide in the paper process water. If the system is badly fouled, it must be cleaned prior to treatment with chlorine dioxide. This product can be used as a slimicide for process water used in the manufacture of food-contact paper and paperboard.

Pasteurizer, cannery and retort water systems:
To control odor and reduce bacterial slime in cooling and warming waters such as canning, retort, and pasteurizer process water, chlorine dioxide may be added intermittently to achieve a dose of 0.4 ppm.

DIRECTIONS FOR USE (cont'd)

Impounded lake, pond and reservoir water, including industrial waste water
To control microorganisms and algae that cause unacceptable odors and slime, these aquatic sites may be treated with chlorine dioxide on an intermittent basis. Sufficient chlorine dioxide must be added to reach a residual concentration of 5 ppm, in order to achieve adequate control of odor and slime caused by algae and microorganisms.

Sewage and wastewater systems
For disinfection/sanitization) of sewage and wastewater, add chlorine dioxide to achieve a residual of up to 5 ppm. To control odors caused by sulfides associated with sewage and wastewater, a minimum of 5.2 ppm chlorine dioxide must be applied to oxidize 1 ppm sulfide (measured as sulfide ion) if the pH is between 5-9. A minimum of 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol if the pH is less than 8; if the pH is greater than 10, a minimum of 3.5 ppm chlorine dioxide is required.

Gas and oil recovery injection water; fracturing system fluids
(NOT APPROVED FOR USE IN CALIFORNIA)
To control sulfate reducing bacteria that form colloidal sulfur or iron sulfides, and to oxidize sulfides, a continuous or intermittent application of chlorine dioxide may be used. If using a continuous feed of chlorine dioxide, apply it at rates slightly higher than the sulfide oxidative demand, as determined by a sulfide demand study. If using an intermittent feed, apply a shock dose of 200-3000 ppm chlorine dioxide. Please be certain that this product is not discharged into lakes, streams, ponds, oceans or other waters.

Ultrasonic tank water; photo processing wash water; and leather processing solutions
(NOT APPROVED FOR USE IN CALIFORNIA)
To control slime caused by microbial populations in these liquid systems, a residual chlorine dioxide concentration between 0.25 to 5.0 ppm is necessary. Chlorine dioxide may be added intermittently, or on a continuous basis to achieve the desired residual; the concentration maintained is dependent on individual systems.

Agricultural Water Uses (Non-Food Contact)
Purate is approved for use in the control of microbial populations in water for the following agricultural non-food contact uses: Drinking water treatment for animals not meant for human consumption (e.g., show and research animals, animals raised for fur to wool; horses, mules or donkeys). Treatment of drinking water tanks for livestock not meant for human consumption can be achieved by intermittent or continuous application of chloride dioxide. Either method must be monitored, to achieve a residual concentration between 1.0 – 2.0 ppm chlorine dioxide.

This product also may be used to generate chlorine dioxide for non-pesticidal uses such as:

Oxidizing nutrients	Reducing sludge
Eliminating odors	Clarifying/precipitating organic and inorganic particles
Controlling scale & deposits	Reducing TOC (Total Organic Carbon)
Controlling iron & manganese	Reducing color
Controlling corrosion	Destruction of odors caused by phenolic simple cyanides and sulfides by chemical oxidation

Storage and Disposal Statement for non-refillable containers:

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in the original container. Store at ambient temperatures from 40°F to 100°F. Store separately from sulfuric acid precursor and all other acids. Store in fire-resistant area separate from incompatible materials such as acids, powdered metals, organic chemicals, combustible materials and dirt. Clean up spills immediately.
PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Clean container promptly after emptying.
Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Alteratively, pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling or reconditioning. If recycling is unavailable, puncture and dispose of container in a sanitary landfill, or by incineration.

Rev. 6/14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Linda J. Fane
Senior Manager
1601 West Diehl Rd.
Naperville, IL 60563-1198

SEP 29 2014

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Subject: Purate
EPA Registration No. 1706-242
Application Dated: August 1, 2014
Receipt Dated: August 4, 2014

Dear Ms. Fane:

This acknowledges the receipt of your Amendment application dated August 1, 2014 in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended.

Submission and Proposed Changes

Update the company name, address and registration number due to registration transfer, add optional marketing language "Not approved for use in California", change ® symbol to ™ from product brand name, and harmonize the Pesticide Storage and Pesticide Disposal headings for Nalco Purate™ product (EPA Reg# 1706-242). Product label Rev 6/14.

General Comments

Based on the review of the material submitted, the label amendment for Purate™ (EPA Reg# 1706-242) **is acceptable. A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. The next label printing of this product must use this labeling unless subsequent changes have been approved. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.** This latest amended label and a copy of this letter have been inserted in your file for future reference.

If you have any questions or comments concerning this letter, please contact David Liem at liem.david@epa.gov or call (703) 305-1284, or me at fuller.demson@epa.gov or call 703-308-8062.

Sincerely,

Demson Fuller
Product Manager - Team 32
Regulatory Management Branch II
Antimicrobials Division (7510P)

Att: Accepted stamped label.

NALCO

PURATE™

A Precursor Chemical Solution for Use Only in the SVP-Pure™ Chlorine Dioxide Generator

This chemical solution is for the use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device that produces CHLORINE DIOXIDE aqueous into water. In addition to this precursor, the SVP-Pure Chlorine Dioxide Generator usually requires a feedstock of 78% sulfuric acid. Please refer to the SVP-Pure Maintenance and Operations Manual to ensure proper activation.

FOR INDUSTIAL USE

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

"Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle." (If you do not understand the label, find someone to explain it to you in detail.)"

ACTIVE INGREDIENT:
Sodium Chlorate ($NaClO_3$) 40.0%
OTHER INGREDIENTS: 60.0%
TOTAL 100.0%

FIRST AID	
IF IN EYES	Hold eye open and flush with a directed stream of water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

In case of exposure emergency, call (800) 424-9300

NALCO COMPANY 1601 W. Diehl Road Naperville, IL 60563-1198 (630) 305-1000	EPA Reg. No. 1706-242 EPA Est. No. 49620-MS-1 ________

________ Net Contents ________ Gallons

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Harmful if absorbed through the skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Wear goggles or face shield. When contact is likely, wear a PVC or rubber rainsuit and wash down rainsuit after each use. Wear protective gloves, plastic or rubber. Wear plastic or rubber safety toed boots. Leather and cloth impregnated with sodium chlorate are highly flammable and easily ignited with minor friction. Remove and wash contaminated clothing before re-use. Do not allow contaminated clothing to dry before washing clothing on-site. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

CHEMICAL HAZARDS

Purate is a strong oxidizing agent. Do not contaminate with dirt, oils or organic matter of any sort. Contamination may cause violent chemical reactions, fire and explosion. Clean up all chemical spills immediately. Allowing spills to dry or concentrate may cause spontaneous combustion. In case of chemical spills, avoid bodily contact and wear appropriate protective equipment.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Change clothing when contaminated and wash on-site. Do not allow contaminated clothing to dry before washing clothing on-site.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User must wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

User must remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Do not allow contaminated clothing to dry before washing clothing on-site.

User must remove PPE immediately after handing this product. As soon as possible, wash thoroughly and change into clean clothing.

DIRECTIONS FOR USE

General Directions:

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Only for formulation as an antimicrobial for the following uses: Purate is for use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device installed to generate chlorine dioxide for the registered uses listed below. Feed rates for Purate are determined by the operator to achieve the desired production rate for chlorine dioxide. As described below, the appropriate production rate will depend on the severity of contamination, the degree of control desired, the size of the system and residual necessary for effective control. For all uses, the point of feed of chlorine dioxide must be below the water level to prevent volatilization of the chlorine dioxide. Chlorine dioxide must be added to the water stream at a point where adequate mixing and uniform distribution can occur.

Drinking Water Treatment

This product is approved for use in water treatment facilities that produce potable drinking water in compliance with the Safe Drinking Water Act. A typical dosage of chlorine dioxide for water systems is between 0.5 and 5 ppm on a continuous basis. Purate has been approved by the National Sanitation Foundation for use in drinking water systems.

INDUSTRIAL PROCESS WATER USES:

This product is approved for the control of microbial, algal and mollusk populations in industrial process or waste water at the sites listed below. The dosage of chlorine dioxide required is dependent on the specific use; see specific directions below. Purate may be used to treat the following aquatic sites:

Recirculating Cooling Water Towers

To control microbial and algal slime in recirculating cooling water systems, an intermittent or continuous application may be used. If using continuous feed, maintain residual chlorine dioxide concentrations *between 0.1 – 1.0 ppm. If using intermittent feed, maintain a residual concentration of 0.1 – 5.0 ppm.* Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Once-Through Cooling Water Towers

To remove adult mollusks in once-through cooling water systems, and intermittent dose of 0.2-25 ppm necessary; the exact dose is dependent on the infestation present. If a continuous dose is preferred, apply chlorine dioxide at rates that maintain 0.25-2 ppm in the cooling water. To prevent settling and attachment of the free swimming larvae or mollusks (veligers), apply a continuous feed to achieve a residual of 0.1-0.5 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Textile processing water and pulp and paper process water

To control microorganisms that form slime in paper process water and that cause blockages of paper mill equipment, and to oxidize slime buildup already present, chlorine dioxide may be applied in an intermittent or continuous dose. Either method of application must maintain a residual concentration of 0.1 – 5.0 ppm of chlorine dioxide in the paper process water. If the system is badly fouled, it must be cleaned prior to treatment with chlorine dioxide. This product can be used as a slimicide for process water used in the manufacture of food-contact paper and paperboard.

Pasteurizer, cannery and retort water systems:

To control odor and reduce bacterial slime in cooling and warming waters such as canning, retort, and pasteurizer process water, chlorine dioxide may be added intermittently to achieve a dose of 0.4 ppm.

Impounded lake, pond and reservoir water, including industrial waste water

To control microorganisms and algae that cause unacceptable odors and slime, these aquatic sites may be treated with chlorine dioxide on an intermittent basis. Sufficient chlorine dioxide must be added to reach a residual concentration of 5 ppm, in order to achieve adequate control of odor and slime caused by algae and microorganisms.

Sewage and wastewater systems

For (disinfection/sanitization) of sewage and wastewater, add chlorine dioxide to achieve a residual of up to 5 ppm. To control odors caused by sulfides associated with sewage and wastewater, a minimum of 5.2 ppm chlorine dioxide must be applied to oxidize 1 ppm sulfide (measured as sulfide ion) if the pH is between 5-9. A minimum of 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol if the pH is less than 8; if the pH is greater than 10, a minimum of 3.5 ppm chlorine dioxide is required.

Gas and oil recovery injection water; fracturing system fluids
(NOT APPROVED FOR USE IN CALIFORNIA)

To control sulfate reducing bacteria that form colloidal sulfur or iron sulfides, and to oxidize sulfides, a continuous or intermittent application of chlorine dioxide may be used. If using a continuous feed of chlorine dioxide, apply it at rates slightly higher than the sulfide oxidative demand, as determined by a sulfide demand study. If using an intermittent feed, apply a shock dose of 200-3000 ppm chlorine dioxide. Please be certain that this product is not discharged into lakes, streams, ponds, oceans or other waters.

Ultrasonic tank water; photo processing wash water; and leather processing solutions
(NOT APPROVED FOR USE IN CALIFORNIA)

To control slime caused by microbial populations in these liquid systems, a residual chlorine dioxide concentration between 0.25 to 5.0 ppm is necessary. Chlorine dioxide may be added intermittently, or on a continuous basis to achieve the desired residual; the concentration maintained is dependent on individual systems.

Agricultural Water Uses (Non-Food Contact)

Purate is approved for use in the control of microbial populations in water for the following agricultural non-food contact uses: Drinking water treatment for animals not meant for human consumption (e.g., show and research animals, animals raised for fur to wool; horses, mules or donkeys). Treatment of drinking water tanks for livestock not meant for human consumption can be achieved by intermittent or continuous application of chloride dioxide. Either method must be monitored, to achieve a residual concentration between 1.0 – 2.0 ppm chlorine dioxide.

This product also may be used to generate chlorine dioxide for non-pesticidal uses such as:

Oxidizing nutrients	Reducing sludge
Eliminating odors	Clarifying/precipitating organic and inorganic particles
Controlling scale & deposits	Reducing TOC (Total Organic Carbon)
Controlling iron & manganese	Reducing color
Controlling corrosion	Destruction of odors caused by phenolic simple cyanides and sulfides by chemical oxidation

ACCEPTED
SEP 29 2014
...Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under
...1706-2...

Storage and Disposal Statement for non-refillable & refillable containers:

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in the original container. Store at ambient temperatures from 40°F to 100°F. Store separately from sulfuric acid precursor and all other acids. Store in fire-resistant area separate from incompatible materials such as acids, powdered metals, organic chemicals, combustible materials and dirt. Clean up spills immediately.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA *Regional Office for guidance.*

CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Clean container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Alternatively, pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling or reconditioning. If recycling is unavailable, puncture and dispose of container in a sanitary landfill, or by incineration.

CONTAINER HANDLING: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Rev. 6/14

Material Sent for Data Extraction

Reg. # 1706-242

Description: Amendment

☒ Material(s) Sent to Data Extraction Contractors:

- ☒ New Stamped Label Dated 9/29/14
- ☐ Notification Dated _____
- ☐ New CSF(s) Dated _____
- ☐ Other: _____

☐ Decision #: _____

☒ Other Action/Comments: Image

File this coversheet and attached materials in the jacket. It must be well organized and clipped together, NOT STAPLED. Then give the jacket with the coversheet and materials to staff in the Information Services Center (ISC) (Room S-4900). If a jacket is full or only available as an image, please file materials in a new jacket and bring it down to the (ISC). For further information please call 703-605-0716.

Reviewer: DAVID LIEM

Phone: 305-1284 Division: HED

Date: 9/29/14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Linda J. Fane
Senior Manager
1601 West Diehl Rd.
Naperville, IL 60563-1198

SEP 29 2014

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Subject: Purate
EPA Registration No. 1706-242
Application Dated: August 1, 2014
Receipt Dated: August 4, 2014

Dear Ms. Fane:

This acknowledges the receipt of your Amendment application dated August 1, 2014 in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended.

Submission and Proposed Changes

Update the company name, address and registration number due to registration transfer, add optional marketing language "Not approved for use in California", change ® symbol to ™ from product brand name, and harmonize the Pesticide Storage and Pesticide Disposal headings for Nalco Purate™ product (EPA Reg# 1706-242). Product label Rev 6/14.

General Comments

Based on the review of the material submitted, the label amendment for Purate™ (EPA Reg# 1706-242) **is acceptable. A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. The next label printing of this product must use this labeling unless subsequent changes have been approved. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.** This latest amended label and a copy of this letter have been inserted in your file for future reference.

If you have any questions or comments concerning this letter, please contact David Liem at liem.david@epa.gov or call (703) 305-1284, or me at fuller.demson@epa.gov or call 703-308-8062.

Sincerely,

Demson Fuller
Product Manager - Team 32
Regulatory Management Branch II
Antimicrobials Division (7510P)

Att: Accepted stamped label.

NALCO
PURATE™

A Precursor Chemical Solution for Use Only In the SVP-Pure™ Chlorine Dioxide Generator
This chemical solution is for the use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device that produces CHLORINE DIOXIDE absorbed into water. In addition to this precursor, the SVP-Pure Chlorine Dioxide Generator usually requires a feedstock of 78% sulfuric acid. Please refer to the SVP-Pure Maintenance and Operations Manual to ensure proper activation.

FOR INDUSTIAL USE
KEEP OUT OF REACH OF CHILDREN
DANGER/PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)"

ACTIVE INGREDIENT:

Sodium Chlorate ($NaClO_3$)	40.0%
OTHER INGREDIENTS:	60.0%
TOTAL	100.0%

FIRST AID	
IF IN EYES	Hold eye open and flush with a directed stream of water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

In case of exposure emergency, call (800) 424-9300

NALCO COMPANY
1601 W. Diehl Road
Naperville, IL 60563-1198
(630) 305-1000

EPA Reg. No. 1708-242
EPA Est. No. 49620-MS-1 _____

Net Contents _____ Gallons

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Harmful if absorbed through the skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Wear goggles or face shield. When contact is likely, wear a PVC or rubber rainsuit and wash down rainsuit after each use. Wear protective gloves, plastic or rubber. Wear plastic or rubber safety toed boots. Leather and cloth impregnated with sodium chlorate are highly flammable and easily ignited with minor friction. Remove and wash contaminated clothing before re-use. Do not allow contaminated clothing to dry before washing clothing on-site. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

CHEMICAL HAZARDS

Purate is a strong oxidizing agent. Do not contaminate with dirt, oils or organic matter of any sort. Contamination may cause violent chemical reactions, fire and explosion. Clean up all chemical spills immediately. Allowing spills to dry or concentrate may cause spontaneous combustion. In case of chemical spills, avoid bodily contact and wear appropriate protective equipment.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Change clothing when contaminated and wash on-site. Do not allow contaminated clothing to dry before washing clothing on-site.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User must wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

User must remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Do not allow contaminated clothing to dry before washing clothing on-site.

User must remove PPE immediately after handing this product. As soon as possible, wash thoroughly and change into clean clothing.

DIRECTIONS FOR USE

General Directions:
It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Only for formulation as an antimicrobial for the following uses: Purate is for use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device installed to generate chlorine dioxide for the registered uses listed below. Feed rates for Purate are determined by the operator to achieve the desired production rate for chlorine dioxide. As described below, the appropriate production rate will depend on the severity of contamination, the degree of control desired, the size of the system and residual necessary for effective control. For all uses, the point of feed of chlorine dioxide must be below the water level to prevent volatilization of the chlorine dioxide. Chlorine dioxide must be added to the water stream at a point where adequate mixing and uniform distribution can occur.

Drinking Water Treatment
This product is approved for use in water treatment facilities that produce potable drinking water in compliance with the Safe Drinking Water Act. A typical dosage of chlorine dioxide for water systems is between 0.5 and 5 ppm on a continuous basis. Purate has been approved by the National Sanitation Foundation for use in drinking water systems.

INDUSTRIAL PROCESS WATER USES:

This product is approved for the control of microbial, algal and mollusk populations in industrial process or waste water at the sites listed below. The dosage of chlorine dioxide required is dependent on the specific use; see specific directions below. Purate may be used to treat the following aquatic sites:

Recirculating Cooling Water Towers
To control microbial and algal slime in recirculating cooling water systems, an intermittent or continuous application may be used. If using continuous feed, maintain residual chlorine dioxide concentrations between 0.1 – 1.0 ppm. If using intermittent feed, maintain a residual concentration of 0.1 – 5.0 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Once-Through Cooling Water Towers
To remove adult mollusks in once-through cooling water systems, and intermittent dose of 0.2-25 ppm necessary; the exact dose is dependent on the infestation present. If a continuous dose is preferred, apply chlorine dioxide at rates that maintain 0.25-2 ppm in the cooling water. To prevent settling and attachment of the free swimming larvae or mollusks (veiligers), apply a continuous feed to achieve a residual of 0.1-0.5 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Textile processing water and pulp and paper process water
To control microorganisms that form slime in paper process water and that cause blockages of paper mill equipment, and to oxidize slime buildup already present, chlorine dioxide may be applied in an intermittent or continuous dose. Either method of application must maintain a residual concentration of 0.1 – 5.0 ppm of chlorine dioxide in the paper process water. If the system is badly fouled, it must be cleaned prior to treatment with chlorine dioxide. This product can be used as a slimicide for process water used in the manufacture of food-contact paper and paperboard.

Pasteurizer, cannery and retort water systems:
To control odor and reduce bacterial slime in cooling and warming waters such as canning, retort, and pasteurizer process water, chlorine dioxide may be added intermittently to achieve a dose of 0.4 ppm.

Impounded lake, pond and reservoir water, including industrial waste water
To control microorganisms and algae that cause unacceptable odors and slime, these aquatic sites may be treated with chlorine dioxide on an intermittent basis. Sufficient chlorine dioxide must be added to reach a residual concentration of 5 ppm, in order to achieve adequate control of odor and slime caused by algae and microorganisms.

Sewage and wastewater systems
For (disinfection/sanitization) of sewage and wastewater, add chlorine dioxide to achieve a residual of up to 5 ppm. To control odors caused by sulfides associated with sewage and wastewater, a minimum of 5.2 ppm chlorine dioxide must be applied to oxidize 1 ppm sulfide (measured as sulfide ion) if the pH is between 5-9. A minimum of 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol if the pH is less than 8; if the pH is greater than 10, a minimum of 3.5 ppm chlorine dioxide is required.

Gas and oil recovery injection water; fracturing system fluids
(NOT APPROVED FOR USE IN CALIFORNIA)
To control sulfate reducing bacteria that form colloidal sulfur or iron sulfides, and to oxidize sulfides, a continuous or intermittent application of chlorine dioxide may be used. If using a continuous feed of chlorine dioxide, apply it at rates slightly higher than the sulfide oxidative demand, as determined by a sulfide demand study. If using an intermittent feed, apply a shock dose of 200-3000 ppm chlorine dioxide. Please be certain that this product is not discharged into lakes, streams, ponds, oceans or other waters.

Ultrasonic tank water; photo processing wash water; and leather processing solutions
(NOT APPROVED FOR USE IN CALIFORNIA)
To control slime caused by microbial populations in these liquid systems, a residual chlorine dioxide concentration between 0.25 to 5.0 ppm is necessary. Chlorine dioxide may be added intermittently, or on a continuous basis to achieve the desired residual; the concentration maintained is dependent on individual systems.

Agricultural Water Uses (Non-Food Contact)
Purate is approved for use in the control of microbial populations in water for the following agricultural non-food contact uses: Drinking water treatment for animals not meant for human consumption (e.g., show and research animals, animals raised for fur to wool; horses, mules or donkeys). Treatment of drinking water tanks for livestock not meant for human consumption can be achieved by intermittent or continuous application of chloride dioxide. Either method must be monitored, to achieve a residual concentration between 1.0 – 2.0 ppm chlorine dioxide.

This product also may be used to generate chlorine dioxide for non-pesticidal uses such as:

Oxidizing nutrients	Reducing sludge
Eliminating odors	Clarifying/precipitating organic and inorganic particles
Controlling scale & deposits	Reducing TOC (Total Organic Carbon)
Controlling iron & manganese	Reducing color
Controlling corrosion	Destruction of odors caused by phenolic simple cyanides and sulfides by chemical oxidation

Storage and Disposal Statement for non-refillable & refillable containers:

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in the original container. Store at ambient temperatures from 40°F to 100°F. Store separately from sulfuric acid precursor and reducing agents. Store in fire-resistant area separate from incompatible materials such as acids, powdered metals, organic chemicals, combustible materials and dirt. Clean up spills immediately.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Clean container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Alteratively, pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling or reconditioning. If recycling is unavailable, puncture and dispose of container in a sanitary landfill, or by incineration.

CONTAINER HANDLING: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Rev. 6/14

NALCO PURATE™

A Precursor Chemical Solution for Use Only in the SVP-Pure™ Chlorine Dioxide Generator

This chemical solution is for the use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device that produces CHLORINE DIOXIDE absorbed into water. In addition to this precursor, the SVP-Pure Chlorine Dioxide Generator usually requires a feedstock of 78% sulfuric acid. Please refer to the SVP-Pure Maintenance and Operations Manual to ensure proper activation.

FOR INDUSTIAL USE
KEEP OUT OF REACH OF CHILDREN
DANGER/PELIGRO

"Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)"

ACTIVE INGREDIENT:
dium Chlorate ($NaClO_3$) 40.0%
HER INGREDIENTS: 60.0%
OTAL 100.0%

FIRST AID	
IF IN EYES	Hold eye open and flush with a directed stream of water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

In case of exposure emergency, call (800) 424-9300

NALCO COMPANY
1601 W. Diehl Road
Naperville, IL 60563-1198
(0) 305-1000

EPA Reg. No. 1706-242
EPA Est. No. 49620-MS-1 _____

Net Contents _____ Gallons

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Harmful if absorbed through the skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Wear goggles or face shield. When contact is likely, wear a PVC or rubber rainsuit and wash down rainsuit after each use. Wear protective gloves, plastic or rubber. Wear plastic or rubber safety toed boots. Leather and cloth impregnated with sodium chlorate are highly flammable and easily ignited with minor friction. Remove and wash contaminated clothing before re-use. Do not allow contaminated clothing to dry before washing clothing on-site. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

CHEMICAL HAZARDS

Purate is a strong oxidizing agent. Do not contaminate with dirt, oils or organic matter of any sort. Contamination may cause violent chemical reactions, fire and explosion. Clean up all chemical spills immediately. Allowing spills to dry or concentrate may cause spontaneous combustion. In case of chemical spills, avoid bodily contact and wear appropriate protective equipment.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Change clothing when contaminated and wash on-site. Do not allow contaminated clothing to dry before washing clothing on-site.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User must wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

User must remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Do not allow contaminated clothing to dry before washing clothing on-site.

User must remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

DIRECTIONS FOR USE

General Directions:

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Only for formulation as an antimicrobial for the following uses: Purate is for use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device installed to generate chlorine dioxide for the registered uses listed below. Feed rates for Purate are determined by the operator to achieve the desired production rate for chlorine dioxide. As described below, the appropriate production rate will depend on the severity of contamination, the degree of control desired, the size of the system and residual necessary for effective control. For all uses, the point of feed of chlorine dioxide must be below the water level to prevent volatilization of the chlorine dioxide. Chlorine dioxide must be added to the water stream at a point where adequate mixing and uniform distribution can occur.

Drinking Water Treatment

This product is approved for use in water treatment facilities that produce potable drinking water in compliance with the Safe Drinking Water Act. A typical dosage of chlorine dioxide for water systems is between 0.5 and 5 ppm on a continuous basis. Purate has been approved by the National Sanitation Foundation for use in drinking water systems.

INDUSTRIAL PROCESS WATER USES:

This product is approved for the control of microbial, algal and mollusk populations in industrial process or waste water at the sites listed below. The dosage of chlorine dioxide required is dependent on the specific use; see specific directions below. Purate may be used to treat the following aquatic sites:

Recirculating Cooling Water Towers

To control microbial and algal slime in recirculating cooling water systems, an intermittent or continuous application may be used. If using continuous feed, maintain residual chlorine dioxide concentrations between 0.1 – 1.0 ppm. If using intermittent feed, maintain a residual concentration of 0.1 – 5.0 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Once-Through Cooling Water Towers

To remove adult mollusks in once-through cooling water systems, and intermittent dose of 0.2-25 ppm necessary; the exact dose is dependent on the infestation present. If a continuous dose is preferred, apply chlorine dioxide at rates that maintain 0.25-2 ppm in the cooling water. To prevent settling and attachment of the free swimming larvae or mollusks (veligers), apply a continuous feed to achieve a residual of 0.1-0.5 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Textile processing water and pulp and paper process water

To control microorganisms that form slime in paper process water and that cause blockages of paper mill equipment, and to oxidize slime buildup already present, chlorine dioxide may be applied in an intermittent or continuous dose. Either method of application must maintain a residual concentration of 0.1 – 5.0 ppm of chlorine dioxide in the paper process water. If the system is badly fouled, it must be cleaned prior to treatment with chlorine dioxide. This product can be used as a slimicide for process water used in the manufacture of food-contact paper and paperboard.

Pasteurizer, cannery and retort water systems:

To control odor and reduce bacterial slime in cooling and warming waters such as canning, retort, and pasteurizer process water, chlorine dioxide may be added intermittently to achieve a dose of 0.4 ppm.

Impounded lake, pond and reservoir water, including industrial waste water

To control microorganisms and algae that cause unacceptable odors and slime, these aquatic sites may be treated with chlorine dioxide on an intermittent basis. Sufficient chlorine dioxide must be added to reach a residual concentration of 5 ppm, in order to achieve adequate control of odor and slime caused by algae and microorganisms.

Sewage and wastewater systems

For (disinfection/sanitization) of sewage and wastewater, add chlorine dioxide to achieve a residual of up to 5 ppm. To control odors caused by sulfides associated with sewage and wastewater, a minimum of 5.2 ppm chlorine dioxide must be applied to oxidize 1 ppm sulfide (measured as sulfide ion) if the pH is between 5-9. A minimum of 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol if the pH is less than 8; if the pH is greater than 10, a minimum of 3.5 ppm chlorine dioxide is required.

Gas and oil recovery injection water; fracturing system fluids
(NOT APPROVED FOR USE IN CALIFORNIA)

To control sulfate reducing bacteria that form colloidal sulfur or iron sulfides, and to oxidize sulfides, a continuous or intermittent application of chlorine dioxide may be used. If using a continuous feed of chlorine dioxide, apply it at rates slightly higher than the sulfide oxidative demand, as determined by a sulfide demand study. If using an intermittent feed, apply a shock dose of 200-3000 ppm chlorine dioxide. Please be certain that this product is not discharged into lakes, streams, ponds, oceans or other waters.

Ultrasonic tank water; photo processing wash water; and leather processing solutions
(NOT APPROVED FOR USE IN CALIFORNIA)

To control slime caused by microbial populations in these liquid systems, a residual chlorine dioxide concentration between 0.25 to 5.0 ppm is necessary. Chlorine dioxide may be added intermittently, or on a continuous basis to achieve the desired residual; the concentration maintained is dependent on individual systems.

Agricultural Water Uses (Non-Food Contact)

Purate is approved for use in the control of microbial populations in water for the following agricultural non-food contact uses: Drinking water treatment for animals not meant for human consumption (e.g., show and research animals, animals raised for fur to wool; horses, mules or donkeys). Treatment of drinking water tanks for livestock not meant for human consumption can be achieved by intermittent or continuous application of chloride dioxide. Either method must be monitored, to achieve a residual concentration between 1.0 – 2.0 ppm chlorine dioxide.

This product also may be used to generate chlorine dioxide for non-pesticidal uses such as:

Oxidizing nutrients	Reducing sludge
Eliminating odors	Clarifying/precipitating organic and inorganic particles
Controlling scale & deposits	Reducing TOC (Total Organic Carbon)
Controlling iron & manganese	Reducing color
Controlling corrosion	Destruction of odors caused by phenolic simple cyanides and sulfides by chemical oxidation

ACCEPTED
SEP 29 2014
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 1706-242

Storage and Disposal Statement for non-refillable & refillable containers:

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in the original container. Store at ambient temperatures above 40°F to 100°F. Store separately from sulfuric acid precursor and all other acids. Store in fire-resistant area separate from incompatible materials such as acids, powdered metals, organic chemicals, combustible materials and dirt. Clean up spills immediately.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Clean container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Alternatively, pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling or reconditioning. If recycling is unavailable, puncture and dispose of container in a sanitary landfill, or by incineration.

CONTAINER HANDLING: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Rev. 8/14

NALCO
PURATE™

A Precursor Chemical Solution for Use Only in the SVP-Pure™ Chlorine Dioxide Generator
This chemical solution is for the use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device that produces CHLORINE DIOXIDE absorbed into water. In addition to this precursor, the SVP-Pure Chlorine Dioxide Generator usually requires a feedstock of 78% sulfuric acid. Please refer to the SVP-Pure Maintenance and Operations Manual to ensure proper activation.

FOR INDUSTIAL USE
KEEP OUT OF REACH OF CHILDREN
DANGER/PELIGRO

"Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)"

ACTIVE INGREDIENT:
Sodium Chlorate ($NaClO_3$) 40.0%
OTHER INGREDIENTS: 60.0%
TOTAL..... 100.0%

FIRST AID	
IF IN EYES	Hold eye open and flush with a directed stream of water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

In case of exposure emergency, call (800) 424-9300

NALCO COMPANY
1601 W. Diehl Road
Naperville, IL 60563-1198
(630) 305-1000

EPA Reg. No. 1706-242
EPA Est. No. 49620-MS-1 _____

Net Contents _____ Gallons

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Harmful if absorbed through the skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Wear goggles or face shield. When contact is likely, wear a PVC or rubber rainsuit and wash down rainsuit after each use. Wear protective gloves, plastic or rubber. Wear plastic or rubber safety toed boots. Leather and cloth impregnated with sodium chlorate are highly flammable and easily ignited with minor friction. Remove and wash contaminated clothing before re-use. Do not allow contaminated clothing to dry before washing clothing on-site. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

CHEMICAL HAZARDS

Purate is a strong oxidizing agent. Do not contaminate with dirt, oils or organic matter of any sort. Contamination may cause violent chemical reactions, fire and explosion. Clean up all chemical spills immediately. Allowing spills to dry or concentrate may cause spontaneous combustion. In case of chemical spills, avoid bodily contact and wear appropriate protective equipment.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Change clothing when contaminated and wash on-site. Do not allow contaminated clothing to dry before washing clothing on-site.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User must wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

User must remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Do not allow contaminated clothing to dry before washing clothing on-site.

User must remove PPE immediately after handing this product. As soon as possible, wash thoroughly and change into clean clothing.

DIRECTIONS FOR USE

General Directions:

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Only for formulation as an antimicrobial for the following uses: Purate is for use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device installed to generate chlorine dioxide for the registered uses listed below. Feed rates for Purate are determined by the operator to achieve the desired production rate for chlorine dioxide. As described below, the appropriate production rate will depend on the severity of contamination, the degree of control desired, the size of the system and residual necessary for effective control. For all uses, the point of feed of chlorine dioxide must be below the water level to prevent volatilization of the chlorine dioxide. Chlorine dioxide must be added to the water stream at a point where adequate mixing and uniform distribution can occur.

Drinking Water Treatment
This product is approved for use in water treatment facilities that produce potable drinking water in compliance with the Safe Drinking Water Act. A typical dosage of chlorine dioxide for water systems is between 0.5 and 5 ppm on a continuous basis. Purate has been approved by the National Sanitation Foundation for use in drinking water systems.

INDUSTRIAL PROCESS WATER USES:

This product is approved for the control of microbial, algal and mollusk populations in industrial process or waste water at the sites listed below. The dosage of chlorine dioxide required is dependent on the specific use; see specific directions below. Purate may be used to treat the following aquatic sites:

Recirculating Cooling Water Towers
To control microbial and algal slime in recirculating cooling water systems, an intermittent or continuous application may be used. If using continuous feed, maintain residual chlorine dioxide concentrations between 0.1 – 1.0 ppm. If using intermittent feed, maintain a residual concentration of 0.1 – 5.0 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Once-Through Cooling Water Towers
To remove adult mollusks in once-through cooling water systems, and intermittent dose of 0.2-25 ppm necessary; the exact dose is dependent on the infestation present. If a continuous dose is preferred, apply chlorine dioxide at rates that maintain 0.25-2 ppm in the cooling water. To prevent setting and attachment of the free swimming larvae or mollusks (veligers), apply a continuous feed to achieve a residual of 0.1-0.5 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Textile processing water and pulp and paper process water
To control microorganisms that form slime in paper process water and that cause blockages of paper mill equipment, and to oxidize slime buildup already present, chlorine dioxide may be applied in an intermittent or continuous dose. Either method of application must maintain a residual concentration of 0.1 – 5.0 ppm of chlorine dioxide in the paper process water. If the system is badly fouled, it must be cleaned prior to treatment with chlorine dioxide. This product can be used as a slimicide for process water used in the manufacture of food-contact paper and paperboard.

Pasteurizer, cannery and retort water systems:
To control odor and reduce bacterial slime in cooling and warming waters such as canning, retort, and pasteurizer process water, chlorine dioxide may be added intermittently to achieve a dose of 0.4 ppm.

Impounded lake, pond and reservoir water, including industrial waste water
To control microorganisms and algae that cause unacceptable odors and slime, these aquatic sites may be treated with chlorine dioxide on an intermittent basis. Sufficient chlorine dioxide must be added to reach a residual concentration of 5 ppm, in order to achieve adequate control of odor and slime caused by algae and microorganisms.

Sewage and wastewater systems
For (disinfection/sanitization) of sewage and wastewater, add chlorine dioxide to achieve a residual of up to 5 ppm. To control odors caused by sulfides associated with sewage and wastewater, a minimum of 5.2 ppm chlorine dioxide must be applied to oxidize 1 ppm sulfide (measured as sulfide ion) if the pH is between 5-9. A minimum of 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol if the pH is less than 8; if the pH is greater than 10, a minimum of 3.5 ppm chlorine dioxide is required.

Gas and oil recovery injection water; fracturing system fluids
(NOT APPROVED FOR USE IN CALIFORNIA)
To control sulfate reducing bacteria that form colloidal sulfur or iron sulfides, and to oxidize sulfides, a continuous or intermittent application of chlorine dioxide may be used. If using a continuous feed of chlorine dioxide, apply it at rates slightly higher than the sulfide oxidative demand, as determined by a sulfide demand study. If using an intermittent feed, apply a shock dose of 200-3000 ppm chlorine dioxide. Please be certain that this product is not discharged into lakes, streams, ponds, oceans or other waters.

Ultrasonic tank water; photo processing wash water; and leather processing solutions
(NOT APPROVED FOR USE IN CALIFORNIA)
To control slime caused by microbial populations in these liquid systems, a residual chlorine dioxide concentration between 0.25 to 5.0 ppm is necessary. Chlorine dioxide may be added intermittently, or on a continuous basis to achieve the desired residual; the concentration maintained is dependent on individual systems.

Agricultural Water Uses (Non-Food Contact)
Purate is approved for use in the control of microbial populations in water for the following agricultural non-food contact uses: Drinking water treatment for animals not meant for human consumption (e.g., show and research animals, animals raised for fur to wool; horses, mules or donkeys). Treatment of drinking water tanks for livestock not meant for human consumption can be achieved by intermittent or continuous application of chloride dioxide. Either method must be monitored, to achieve a residual concentration between 1.0 – 2.0 ppm chlorine dioxide.

This product also may be used to generate chlorine dioxide for non-pesticidal uses such as:

Oxidizing nutrients	Reducing sludge
Eliminating odors	Clarifying/precipitating organic and inorganic particles
Controlling scale & deposits	Reducing TOC (Total Organic Carbon)
Controlling iron & manganese	Reducing color
Controlling corrosion	Destruction of odors caused by phenolic simple cyanides and sulfides by chemical oxidation

ACCEPTED
SEP 29 2014
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 1706-242

Storage and Disposal Statement for non-refillable & refillable containers:

STORAGE AND DISPOSAL:

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in the original container. Store at ambient temperatures above 40°F to 100°F. Store separately from sulfuric acid precursor and all other acids. Store in fire-resistant area separate from incompatible materials such as acids, powdered metals, organic chemicals, combustible materials and dirt. Clean up spills immediately.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Clean container promptly after emptying.
Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Alterativaly, pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling or reconditioning. If recycling is unavailable, puncture and dispose of container in a sanitary landfill, or by incineration.

CONTAINER HANDLING: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Rev. 6/14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

April 28, 2014

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

MS. RHONDA SCHULZ
ECOLAB, INC., AGENT FOR
NALCO COMPANY
A SUBSIDIARY OF ECOLAB, INC.
370 N. WABASHA STREET
ST. PAUL, MN 55102-1390

Dear Ms. Schulz:

Subject: Transfer of Pesticide Registrations and Data From Company Number 49620 to Company Number 1706

Pursuant to your request in your letter and transfer agreement received March 04, 2014, we have approved the transfer of the following registrations from **AKZO NOBEL PULP AND PERFORMANCE CHEMICALS INC.**, company number **49620** to **NALCO COMPANY**, company number **1706.**

The effective date of these changes is the date of this letter.

Registered Products	Old EPA Reg. No.	New EPA Reg. No.
PURATE	**49620-4**	**1706-242**

You should indicate the new company designation, new EPA Registration Number and new Establishment Number (if it has changed) on the labeling at the next printing which should occur no later than 18 months after the effective date of this transfer. After 18 months, any product released for shipment must bear the new Registration Number and Establishment Number. If you intend to use the labels which currently appear on the transferor's product after the effective date of the transfer, but within the 18 month grace period, you must maintain complete and accurate records which identify by batch number, lot number, or other suitable description the quantities of such product bearing the transferor's label. Each container or package bearing the transferor's label which is released after the effective date of product registration transfer, must be clearly and accurately marked with the batch number, lot number or other descriptive designation used to identify the product in your records.

Supplemental distribution agreements of registered products do not transfer with the Section 3 registration. It is your responsibility as the registrant to notify any and all supplemental

distributors of the transferred product(s) of this transfer agreement. If you wish to enter into supplemental distribution agreements of your product(s) under this new registration, the form "Notice of Supplemental Distribution of a Registered Pesticide Product," EPA Form 8570-5, must be submitted to the Agency for each supplemental distributorship.

You are required to contact your local EPA Regional Office to determine what effect this transfer of pesticide registrations has on the pesticide production establishment registration.

It will not be necessary to submit labeling for review if the only changes are in the company designation and the EPA Registration Number. Other changes in the product and/or labeling may require EPA review and approval prior to distribution or sale of the product containing the new registration number. In any correspondence on these products always refer to the U.S. EPA Registration Number listed above.

The transferred registration will have the same status under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, 7 USC 136 et seq., as it had prior to the approval of this transfer.

When registrations are transferred from one company to a second company, all restrictions, data requirements, conditions (suspensions), and deadlines existing on the registrations are transferred with the registrations. The new company is responsible for adhering to or complying with all such restrictions, etc. on the acquired products.

With regard to deadlines, the transferee company is responsible for submitting all required data according to the schedules already established for the acquired products. Failure to do so will result in the issuance of a Notice of Intent to Suspend. Requests from transferee companies for additional time to submit, because they acquired the registration(s) after the 3(c)(2)(B) request was issued will not be granted. If a transferee company has other valid reasons for delays in the testing which were clearly outside of their control, then such requests for time extensions will be considered in accordance with the established procedures. Transfers occurring while a 3(c)(2)(B) request is being issued or during the 90-day response time are subject to the same conditions expressed above.

Registration is in no way to be construed as an endorsement or approval of these products by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with FIFRA.

Furthermore, the transfer of the subject registrations is approved under the condition that the annual maintenance fee obligation has been fully satisfied. The annual maintenance fee is based solely on the total number of active section 3 and section 24(c) registrations held by the transferor. If the annual maintenance fee has not been fully satisfied, the transferee and transferor will be notified to comply within a specified time period or the affected registrations may be canceled.

The Agency acknowledges it has received a request for data transfer received March 04, 2014 to transfer data ownership from the transferor to the transferee. The data transfer is effective the date of this letter. After this date **NALCO COMPANY** will be considered the data

owner. This action will not automatically reflect on the Data Submitters List. If you want to be added to the Data Submitters List, you must submit a request to:

Document Processing Desk (DSL)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

By copy of this letter we are informing the transferor of these changes. If you have any questions about this transfer approval please contact Louis Vaughn at (703) 308-8114.

Sincerely,

Steve Robbins, Chief
Information Services Branch
Information Technology & Resource Management Div. (7504P)

cc: MR. STEVEN P. GIVENS
AKZO NOBEL PULP AND PERFORMANCE CHEMICALS INC.
1850 PARKWAY PLACE, SUITE 1200
MARIETTA, GA 30067

RE: 49620_RAD_1706_04_28_2014

Appendix A
Data Assignment

MRID Number	Submission Date	Submitter	Admin Number	Lab No.	Description
44803401	4/15/1999	49620	049620-00004	49620	Lovetro, D.; Beers, S.; Dubeck, J. et al. (1999) Product Chemistry: Purate Precursor. Unpublished study prepared by Keller and Heckman LLP. 115 p. {OPPTS 830.1550, 830.1600, 830.1620, 830.1670, 830.1750}
45072901	3/23/2000	49620	049620-00004	49620	Sinning, D. (2000) Physical and Chemical Characteristics of Purate: Physical State, Oxidation/Reduction Flammability, Explodability, pH, Viscosity and Relative Density: Lab Project Number: 2130-01. Unpublished study prepared by Case Consulting Labs, Inc. 7 p. {OPPTS 830.6303, 830.6314, 830.6315, 830.6316, 830.7000, 830.7100, 830.7300}
45448401	7/6/2001	49620	049620-00004	49620	Sinning, D. (2001) Physical and Chemical Characteristics of Purate: Storage Stability and Corrosion Characteristics: Lab Project Number: 2130-02. Unpublished study prepared by Case Consulting Laboratories, Inc. 18 p. {OPPTS 830.6317 and 830.6320}
47116301	4/26/2007	49620	049620-00004	49620	Rice, C. (2007) Purate: Toxicology Data-Waiver Requests. Unpublished study prepared by Keller and Heckman LLP and Eka Chemicals Inc. 25 p.
47116302	4/26/2007	49620	049620-00004	49620	Rice, C. (2007) Purate: Human Exposure. Unpublished study prepared by Keller and Heckman LLP and Eka Chemicals Inc. 12 p.
47116303	4/26/2007	49620	049620-00004	49620	Rice, C. (2007) Application for Pesticide Registration Amendment Purate: Ecological Effects and Environmental Fate Waiver Requests. Unpublished study prepared by Keller and Heckman LLP and Eka Chemicals Inc. 19 p.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

August 5, 2014

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

MS. RHONDA SCHULZ
ECOLAB, INC.
NALCO COMPANY
A SUBSIDIARY OF ECOLAB, INC.
370 N. WABASHA STREET
ST. PAUL, MN 55102-1390

PRODUCT NAME: PURATE
COMPANY NAME: NALCO COMPANY
OPP IDENTIFICATION NUMBER:
EPA FILE SYMBOL: 1706-242
EPA RECEIPT DATE: 08/04/14

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Antimicrobials Division, Risk Management Team 32, at (703) 308-8062.

Sincerely,

Front End Processing Staff
Information Services Branch
Information Technology & Resources Management Division

Fee for Service {9558709~

This package includes the following

- ○ New Registration
- ◉ Amendment

☐ Studies? ☐ Fee Waiver?

☐ volpay % Reduction: ___

for Division

- ◉ AD
- ○ BPPD
- ○ RD

Risk Mgr. 32

Receipt No. S-	955870
EPA File Symbol/Reg. No.	1706-242
Pin-Punch Date:	8/4/2014

☒ This item is NOT subject to FFS action.

Action Code:

Requested:

Granted:

Amount Due: $ _____

Parent/Child Decisions:

☐ Inert Cleared for Intended Use ☐ Uncleared Inert in Product

Reviewer: Tom Date: 8/5

Remarks:

Liem, David

From: Fuller, Demson
Sent: Wednesday, September 24, 2014 1:30 PM
To: Fane, Linda
Cc: Kirkman, Janet; Head, Ted; Liem, David
Subject: RE: Purate (1706-242): Team 32 Reviewer

Hi Linda,

Sorry for the delay. This action is due out on 11/2/14. David Liem is the risk manager handling this submission. He is cc:ed on this message.

Demson

From: Fane, Linda [mailto:lfane@nalco.com]
Sent: Wednesday, September 24, 2014 7:50 AM
To: Fuller, Demson
Cc: Kirkman, Janet; Head, Ted
Subject: RE: Purate (1706-242): Team 32 Reviewer

Hi Demson,

Following up per the request below.

Linda J. Fane
Senior Manager
GLOBAL REGULATORY AFFAIRS

NALCO| An Ecolab Company 1601 W DIEHL RD, NAPERVILLE, IL 60563
T 630 305 1455 **F** 630 305 2985 **E** lfane@nalco.com

From: Fane, Linda
Sent: Tuesday, September 16, 2014 9:09 AM
To: Fuller, Demson (Fuller.Demson@epa.gov) (Fuller.Demson@epa.gov)
Cc: Kirkman, Janet; Head, Ted
Subject: Purate (1706-242): Team 32 Reviewer

Hi Demson,

I'm just following up on our telephone conversation on September 10th regarding the Purate (1706-242) label amendment that is currently in for review/approval. You were going to provide me the contact information on the person on Team 32 that was assigned the project. Can you send me those details? Thank you for your assistance!

Linda J. Fane
Senior Manager
GLOBAL REGULATORY AFFAIRS

NALCO PURATE™

A Precursor Chemical Solution for Use Only in the SVP-Pure™ Chlorine Dioxide Generator
This chemical solution is for the use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device that produces CHLORINE DIOXIDE absorbed into water. In addition to this precursor, the SVP-Pure Chlorine Dioxide Generator usually requires a feedstock of 78% sulfuric acid. Please refer to the SVP-Pure Maintenance and Operations Manual to ensure proper activation.

FOR INDUSTIAL USE
KEEP OUT OF REACH OF CHILDREN
DANGER/PELIGRO

"Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)"

ACTIVE INGREDIENT:
Sodium Chlorate ($NaClO_3$) 40.0%
OTHER INGREDIENTS: 60.0%
TOTAL 100.0%

FIRST AID	
IF IN EYES	Hold eye open and flush with a directed stream of water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

In case of exposure emergency, call (800) 424-9300

NALCO COMPANY
1601 W. Diehl Road
Naperville, IL 60563-1198
(630) 305-1000

EPA Reg. No. 1706-242
EPA Est. No. 49620-MS-1 _____

Net Contents _____ Gallons

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Harmful if absorbed through the skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Wear goggles or face shield. When contact is likely, wear a PVC or rubber rainsuit and wash down rainsuit after each use. Wear protective gloves, plastic or rubber. Wear plastic or rubber safety toed boots. Leather and cloth impregnated with sodium chlorate are highly flammable and easily ignited with minor friction. Remove and wash contaminated clothing before re-use. Do not allow contaminated clothing to dry before washing clothing on-site. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

CHEMICAL HAZARDS

Purate is a strong oxidizing agent. Do not contaminate with dirt, oils or organic matter of any sort. Contamination may cause violent chemical reactions, fire and explosion. Clean up all chemical spills immediately. Allowing spills to dry or concentrate may cause spontaneous combustion. In case of chemical spills, avoid bodily contact and wear appropriate protective equipment.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Change clothing when contaminated and wash on-site. Do not allow contaminated clothing to dry before washing clothing on-site.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User must wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

User must remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Do not allow contaminated clothing to dry before washing clothing on-site.

User must remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

DIRECTIONS FOR USE

General Directions:
It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Only for formulation as an antimicrobial for the following uses: Purate is for use only in the SVP-Pure Chlorine Dioxide Generator, a pesticide device installed to generate chlorine dioxide for the registered uses listed below. Feed rates for Purate are determined by the operator to achieve the desired production rate for chlorine dioxide. As described below, the appropriate production rate will depend on the severity of contamination, the degree of control desired, the size of the system and residual necessary for effective control. For all uses, the point of feed of chlorine dioxide must be below the water level to prevent volatilization of the chlorine dioxide. Chlorine dioxide must be added to the water stream at a point where adequate mixing and uniform distribution can occur.

Drinking Water Treatment
This product is approved for use in water treatment facilities that produce potable drinking water in compliance with the Safe Drinking Water Act. A typical dosage of chlorine dioxide for water systems is between 0.5 and 5 ppm on a continuous basis. Purate has been approved by the National Sanitation Foundation for use in drinking water systems.

INDUSTRIAL PROCESS WATER USES:

This product is approved for the control of microbial, algal and mollusk populations in industrial process or waste water at the sites listed below. The dosage of chlorine dioxide required is dependent on the specific use; see specific directions below. Purate may be used to treat the following aquatic sites:

Recirculating Cooling Water Towers
To control microbial and algal slime in recirculating cooling water systems, an intermittent or continuous application may be used. If using continuous feed, maintain residual chlorine dioxide concentrations between 0.1 – 1.0 ppm. If using intermittent feed, maintain a residual concentration of 0.1 – 5.0 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Once-Through Cooling Water Towers
To remove adult mollusks in once-through cooling water systems, and intermittent dose of 0.2-25 ppm necessary; the exact dose is dependent on the infestation present. If a continuous dose is preferred, apply chlorine dioxide at rates that maintain 0.25-2 ppm in the cooling water. To prevent settling and attachment of the free swimming larvae or mollusks (velligers), apply a continuous feed to achieve a residual of 0.1-0.5 ppm. Chlorine dioxide must be added to drip pan, cold-water well, or other points where adequate mixing and uniform distribution can occur.

Textile processing water and pulp and paper process water
To control microorganisms that form slime in paper process water and that cause blockages of paper mill equipment, and to oxidize slime buildup already present, chlorine dioxide may be applied in an intermittent or continuous dose. Either method of application must maintain a residual concentration of 0.1 – 5.0 ppm of chlorine dioxide in the paper process water. If the system is badly fouled, it must be cleaned prior to treatment with chlorine dioxide. This product can be used as a slimicide for process water used in the manufacture of food-contact paper and paperboard.

Pasteurizer, cannery and retort water systems:
To control odor and reduce bacterial slime in cooling and warming waters such as canning, retort, and pasteurizer process water, chlorine dioxide may be added intermittently to achieve a dose of 0.4 ppm.

Impounded lake, pond and reservoir water, including industrial waste water
To control microorganisms and algae that cause unacceptable odors and slime, these aquatic sites may be treated with chlorine dioxide on an intermittent basis. Sufficient chlorine dioxide must be added to reach a residual concentration of 5 ppm, in order to achieve adequate control of odor and slime caused by algae and microorganisms.

Sewage and wastewater systems
For (disinfection/sanitization) of sewage and wastewater, add chlorine dioxide to achieve a residual of up to 5 ppm. To control odors caused by sulfides associated with sewage and wastewater, a minimum of 5.2 ppm chlorine dioxide must be applied to oxidize 1 ppm sulfide (measured as sulfide ion) if the pH is between 5-9. A minimum of 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol if the pH is less than 8; if the pH is greater than 10, a minimum of 3.5 ppm chlorine dioxide is required.

Gas and oil recovery injection water; fracturing system fluids
(NOT APPROVED FOR USE IN CALIFORNIA)
To control sulfate reducing bacteria that form colloidal sulfur or iron sulfides, and to oxidize sulfides, a continuous or intermittent application of chlorine dioxide may be used. If using a continuous feed of chlorine dioxide, apply it at rates slightly higher than the sulfide oxidative demand, as determined by a sulfide demand study. If using an intermittent feed, apply a shock dose of 200-3000 ppm chlorine dioxide. Please be certain that this product is not discharged into lakes, streams, ponds, oceans or other waters.

Ultrasonic tank water; photo processing wash water; and leather processing solutions
(NOT APPROVED FOR USE IN CALIFORNIA)
To control slime caused by microbial populations in these liquid systems, a residual chlorine dioxide concentration between 0.25 to 5.0 ppm is necessary. Chlorine dioxide may be added intermittently, or on a continuous basis to achieve the desired residual; the concentration maintained is dependent on individual systems.

Agricultural Water Uses (Non-Food Contact)
Purate is approved for use in the control of microbial populations in water for the following agricultural non-food contact uses: Drinking water treatment for animals not meant for human consumption (e.g., show and research animals, animals raised for fur to wool; horses, mules or donkeys). Treatment of drinking water tanks for livestock not meant for human consumption can be achieved by intermittent or continuous application of chloride dioxide. Either method must be monitored, to achieve a residual concentration between 1.0 – 2.0 ppm chlorine dioxide.

This product also may be used to generate chlorine dioxide for non-pesticidal uses such as:

Oxidizing nutrients	Reducing sludge
Eliminating odors	Clarifying/precipitating organic and inorganic particles
Controlling scale & deposits	Reducing TOC (Total Organic Carbon)
Controlling iron & manganese	Reducing color
Controlling corrosion	Destruction of odors caused by phenolic simple cyanides and sulfides by chemical oxidation

Storage and Disposal Statement for non-refillable & refillable containers:

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in the original container. Store at ambient temperatures from 40°F to 100°F. Store separately from sulfuric acid precursor and all other acids. Store in fire-resistant area separate from incompatible materials such as acids, powdered metals, organic chemicals, combustible materials and dirt. Clean up spills immediately.
PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Clean container promptly after emptying.
Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Alteratively, pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling or reconditioning. If recycling is unavailable, puncture and dispose of container in a sanitary landfill, or by incineration.
CONTAINER HANDLING: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat the rinsing procedure two more times.

Rev. 6/14

NALCO
An Ecolab Company

Linda Fane
Senior Manager
T 630 305 1455
F 630 305 2945
1601 W. DIEHL ROAD
NAPERVILLE, IL 60563-1198
lfane@nalco.com

August 1, 2014

Document Processing Desk (AMEND)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501

Attention: Mr. Demson Fuller PM-32

Subject: **Label Amendment**

Product: Purate (EPA Reg. No. 1706-242)

Dear Mr. Fuller:

Nalco is submitting a label amendment for Purate (EPA Reg. No. 1706-242). The label changes are:

1. Update the company name, address and registration number due to registration transfer
2. Addition of the optional marketing language "Not approved for use in California" to two use sites.
3. Remove the ® symbol from the product and device tradenames and replace it with the ™ symbol
4. Harmonization of the titles in the container disposal section for refillable and non-refillabel containers

In support of this label amendment, please find the following:

1. EPA Application Form 8570-1
2. Revised label with the updated language highlighted in yellow (5 copies)
3. EPA registration transfer approval letter dated 4-28-14

If you have any questions, please contact me at 630-305-1455.

Regards,

Linda J. Fane
Senior Manager/Regulatory Affairs

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060, Approval expires 2-28-95

EPA United States **Environmental Protection Agency** Washington, DC 20460

☐ Registration ☒ Amendment ☐ Other

OPP Identifier Number

Application for Pesticide – Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
1706-242	Demson Fuller	☒ None ☐ Restricted
4. Company/Product (Name)	PM#	
Purate ™	32	

5. Name and Address of Applicant *(Include ZIP Code)*
Nalco Company
1601 West Diehl Road
Naperville, IL 60563

☐ *Check if this is a new address*

6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:
EPA Reg. Nos.

Product Names

Section - II

☒ Amendment – Explain below.
☐ Resubmission in response to Agency letter dated ____
☐ Notification – Explain Below.
☐ Final printed labels in response to Agency letter dated ____
☐ "Me Too" Application
☐ Other – Explain Below.

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

Amendment to

1. Update the company name, address and registration number due to registration transfer
2. Addition of the optional marketing language "Not approved for use in California" to two use sites.
3. Remove the ® symbol from the product and device tradenames and replace it with the ™ symbol
4. Harmonization of the titles in the container disposal section for refillable and non-refillable containers

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging		Water Soluble Packaging		2. Type of Container
☐ Yes ☒ No	☐ Yes ☒ No		☐ Yes ☒ No		☐ Metal ☒ Plastic ☐ Glass ☐ Paper ☒ Other (Specify) Bulk
Certification must be submitted	If "Yes" Unit Packaging wgt.	No. per Container	If "Yes" Packaging wgt.	No. per Container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
☐ Label ☒ Container	311 gal. plastic tote, bulk	☒ On Label ☐ On Labeling accompanying product

6. Manner in Which Label is Affixed to Product ☐ Lithograph ☒ Paper Glued ☐ Stenciled ☐ Other ____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Linda J. Fane	Senior Manager, Regulatory Affairs	630-305-1455

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law

6. Date Application Received **(Stamped)**

2. Signature	3. Title
Linda J Fane	Senior Manager, Regulatory Affairs
4. Typed Name	5. Date
Linda J. Fane	8-1-2014

EPA Form 8570-1 (Rev. 3-94) Previous editions are obsolete. **White – EPA File Copy (original)** **Yellow – Applicant copy**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

April 28, 2014

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

MS. RHONDA SCHULZ
ECOLAB, INC., AGENT FOR
NALCO COMPANY
A SUBSIDIARY OF ECOLAB, INC.
370 N. WABASHA STREET
ST. PAUL, MN 55102-1390

Dear Ms. Schulz:

Subject: Transfer of Pesticide Registrations and Data From Company Number 49620 to Company Number 1706

Pursuant to your request in your letter and transfer agreement received March 04, 2014, we have approved the transfer of the following registrations from **AKZO NOBEL PULP AND PERFORMANCE CHEMICALS INC.**, company number **49620** to **NALCO COMPANY**, company number **1706**.

The effective date of these changes is the date of this letter.

Registered Products	Old EPA Reg. No.	New EPA Reg. No.
PURATE	**49620-4**	**1706-242**

You should indicate the new company designation, new EPA Registration Number and new Establishment Number (if it has changed) on the labeling at the next printing which should occur no later than 18 months after the effective date of this transfer. After 18 months, any product released for shipment must bear the new Registration Number and Establishment Number. If you intend to use the labels which currently appear on the transferor's product after the effective date of the transfer, but within the 18 month grace period, you must maintain complete and accurate records which identify by batch number, lot number, or other suitable description the quantities of such product bearing the transferor's label. Each container or package bearing the transferor's label which is released after the effective date of product registration transfer, must be clearly and accurately marked with the batch number, lot number or other descriptive designation used to identify the product in your records.

Supplemental distribution agreements of registered products do not transfer with the Section 3 registration. It is your responsibility as the registrant to notify any and all supplemental

distributors of the transferred product(s) of this transfer agreement. If you wish to enter into supplemental distribution agreements of your product(s) under this new registration, the form "Notice of Supplemental Distribution of a Registered Pesticide Product," EPA Form 8570-5, must be submitted to the Agency for each supplemental distributorship.

You are required to contact your local EPA Regional Office to determine what effect this transfer of pesticide registrations has on the pesticide production establishment registration.

It will not be necessary to submit labeling for review if the only changes are in the company designation and the EPA Registration Number. Other changes in the product and/or labeling may require EPA review and approval prior to distribution or sale of the product containing the new registration number. In any correspondence on these products always refer to the U.S. EPA Registration Number listed above.

The transferred registration will have the same status under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, 7 USC 136 et seq., as it had prior to the approval of this transfer.

When registrations are transferred from one company to a second company, all restrictions, data requirements, conditions (suspensions), and deadlines existing on the registrations are transferred with the registrations. The new company is responsible for adhering to or complying with all such restrictions, etc. on the acquired products.

With regard to deadlines, the transferee company is responsible for submitting all required data according to the schedules already established for the acquired products. Failure to do so will result in the issuance of a Notice of Intent to Suspend. Requests from transferee companies for additional time to submit, because they acquired the registration(s) after the 3(c)(2)(B) request was issued will not be granted. If a transferee company has other valid reasons for delays in the testing which were clearly outside of their control, then such requests for time extensions will be considered in accordance with the established procedures. Transfers occurring while a 3(c)(2)(B) request is being issued or during the 90-day response time are subject to the same conditions expressed above.

Registration is in no way to be construed as an endorsement or approval of these products by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with FIFRA.

Furthermore, the transfer of the subject registrations is approved under the condition that the annual maintenance fee obligation has been fully satisfied. The annual maintenance fee is based solely on the total number of active section 3 and section 24(c) registrations held by the transferor. If the annual maintenance fee has not been fully satisfied, the transferee and transferor will be notified to comply within a specified time period or the affected registrations may be canceled.

The Agency acknowledges it has received a request for data transfer received March 04, 2014 to transfer data ownership from the transferor to the transferee. The data transfer is effective the date of this letter. After this date **NALCO COMPANY** will be considered the data

owner. This action will not automatically reflect on the Data Submitters List. If you want to be added to the Data Submitters List, you must submit a request to:

Document Processing Desk (DSL)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

By copy of this letter we are informing the transferor of these changes. If you have any questions about this transfer approval please contact Louis Vaughn at (703) 308-8114.

Sincerely,

Steve Robbins, Chief
Information Services Branch
Information Technology & Resource Management Div. (7504P)

cc: MR. STEVEN P. GIVENS
AKZO NOBEL PULP AND PERFORMANCE CHEMICALS INC.
1850 PARKWAY PLACE, SUITE 1200
MARIETTA, GA 30067

RE: 49620_RAD_1706_04_28_2014

Appendix A
Data Assignment

MRID Number	Submission Date	Submitter	Admin Number	Lab No.	Description
44803401	4/15/1999	49620	049620-00004	49620	Lovetro, D.; Beers, S.; Dubeck, J. et al. (1999) Product Chemistry: Purate Precursor. Unpublished study prepared by Keller and Heckman LLP. 115 p. {OPPTS 830.1550, 830.1600, 830.1620, 830.1670, 830.1750}
45072901	3/23/2000	49620	049620-00004	49620	Sinning, D. (2000) Physical and Chemical Characteristics of Purate: Physical State, Oxidation/Reduction Flammability, Explodability, pH, Viscosity and Relative Density: Lab Project Number: 2130-01. Unpublished study prepared by Case Consulting Labs, Inc. 7 p. {OPPTS 830.6303, 830.6314, 830.6315, 830.6316, 830.7000, 830.7100, 830.7300}
45448401	7/8/2001	49620	049620-00004	49620	Sinning, D. (2001) Physical and Chemical Characteristics of Purate: Storage Stability and Corrosion Characteristics: Lab Project Number: 2130-02. Unpublished study prepared by Case Consulting Laboratories, Inc. 18 p. {OPPTS 830.6317 and 830.6320}
47116301	4/26/2007	49620	049620-00004	49620	Rice, C. (2007) Purate: Toxicology Data-Waiver Requests. Unpublished study prepared by Keller and Heckman LLP and Eka Chemicals Inc. 25 p.
47116302	4/26/2007	49620	049620-00004	49620	Rice, C. (2007) Purate: Human Exposure. Unpublished study prepared by Keller and Heckman LLP and Eka Chemicals Inc. 12 p.
47116303	4/26/2007	49620	049620-00004	49620	Rice, C. (2007) Application for Pesticide Registration Amendment Purate: Ecological Effects and Evironmental Fate Waiver Requests. Unpublished study prepared by Keller and Heckman LLP and Eka Chemicals Inc. 19 p.

Pages 93-96 Confidential Statement of Formula may be entitled to confidential treatment